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ABSTRACT

The usefulness of the 1980 Census for planning in postsecondary education, and specifically in California, was assessed. Attention is directed to the use of past census data by higher education planners as well as the development of the 1980 Census. The geographic subunits covered by the 1980 Census that may be of use to postsecondary education planners are also covered, along with differences between the 1970 and 1980 Census data items. Additional topics include the following: the limitations of 1980 Census data for postsecondary planning, including its timeliness and usefulness; the potential use of census data in analyzing issues and problems addressed by the California Postsecondary Education Commission in its 1982-1987 five-year plan; and additional sources of data beyond the 1980 Census for postsecondary education planning. It is proposed that the Commission take greater leadership in expanding its own databases from a variety of federal and state sources and that it make data about trends available to California postsecondary planners and leaders. Appendices include the 1980 Census questionnaire, a glossary of geographic terms, a list of publications and computer tapes about the 1980 Census, a bibliography, and an excerpt from an article about complete count questionnaire changes, 1970 to 1980. (SW)

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QUALITY OF THE 1980 FEDERAL CENSUS FOR POSTSECONDARY EDUCATION PLANNING

Lyman A. Glenny

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QUALITY OF THE 1980 FEDERAL CENSUS FOR POSTSECONDARY EDUCATION PLANNING

A REPORT TO THE
CALIFORNIA POSTSECONDARY EDUCATION COMMISSION
BY LYMAN A. GLENNY
MAY 1982

Commission Report 82-36

November 1982

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PREFACE

This report stems from a study designed to assess the usefulness of the 1980 Census for planning in California postsecondary education. In requesting the report, the California Postsecondary Education Commission sought substantive suggestions for using census data in its own planning. It asked that the report cover at least these five topics:

1. the limitations of 1980 Census data with respect to their completeness and precision;

2. the appropriate time-range or duration of projections that can be made from these data;

3. the variety and strength of inferences that can be drawn from the data;

4. the major postsecondary education issues to which the data can be applied; and

5. the types and sources of information which can be collected or examined in order to amplify the usefulness of the census data for California.

The report addresses these five major issues partly as separate topics, but because none of them is easily isolated and because much of importance to any one issue relates so closely to the others, responses to each of them will be found throughout the paper.

Responding to all five topics required a thorough review not only of published 1980 Census instruments and data but also of unpublished information available through the Bureau of the Census, including maps, charts, data tapes, special reports on narrowly defined subject areas, and staff papers prepared for internal use or for conferences. To complicate the task, much of the data thus far released by the Bureau are not in written and bound form but rather on computer tape or on microfiche and are not readily available or convenient to potential users. A discussion of these complications is found in Part Two of the report, regarding the completeness and reliability of the census data.

Completion of the report was scheduled for the spring of 1981, but the Bureau of the Census so delayed the release of guides, reports, and tapes that this report was also delayed. In contrast to the 1970 Census, when the final report on California was issued 18

months after the census date, 26 months have already elapsed since the 1980 Census and no date has yet been announced for release of the California report. This delay has not been fatal to the present study, however. Much valuable information for postsecondary planning exists on tape and in preliminary reports from the census; and with the generous and expert assistance of Ilona Einowski, director of the State Data Program at the Survey Research Center of the University of California, Berkeley, I have been able to describe much of it here as well as indicate the probable publications or tapes from which other data eventually can be derived.

I have divided the report into five parts:

- The first traces the use of past census data by higher education planners as well as the development of the 1980 Census and then discusses the geographic subunits covered by the 1980 Census that may be of use to postsecondary education planners as well as differences between the 1970 Census and that of 1980 in their data items.

- The second points out some of the limitations of the 1980 Census for postsecondary planning, including cautions about its timeliness and usefulness.

- The third illustrates potential use of census data in analyzing issues and problems addressed by the California Postsecondary Education Commission in its most recent five-year plan, The Challenges Ahead: A Planning Agenda for California Postsecondary Education, 1982-1987 (1981).

- The fourth annotates additional sources of data beyond the 1980 Census for postsecondary education planning.

- And the fifth and final section urges the California Postsecondary Education Commission to take greater leadership in expanding its own data bases from a variety of federal and state sources and making data about trends available to California postsecondary education planners and leaders.

In addition to Dr. Einowski, I am indebted to my oft coauthor, Frank M. Bowen, who has read the manuscript and given me his usual thoughtful suggestions for reorganization and clarification. Any errors which remain in it, however, are of my own making.

Lyman A. Glenny

Berkeley, California
May 1982

ONE

USES AND SCOPE OF THE 1980 CENSUS

The decennial censuses of the United States do not have a long history of use by postsecondary education planners. One reason, of course, has been the historical sparcity of planning itself in higher education. For most colleges and universities, planning until recently consisted largely of copying the curriculum, the buildings, and the faculty of some existing institution. Not until this century, when statewide planning for higher education championed the idea of creating systems of institutions with distinctive functions to complement each other, did institutional and government leaders begin to rely on statewide and national population statistics for planning in a focused and comprehensive manner. Since the 1940s, data from the Bureau of the Census have increasingly been employed in planning the development of public and to some extent private higher education.

These census data, however, have seldom been attributed to the Bureau of the Census. Instead, the U.S. Office of Education, its National Center for Education Statistics, the American Council on Education, and other higher education associations have used census data in making their national projections that were then used by state and institutional planners.

For statewide data, these planners have relied more frequently on state-generated statistics than on those originating in the Bureau of the Census; but for broad national trends, census data have proven the most creditable of any national source. Thus of all the many projections of college and university enrollments nationally that have been made over recent decades, those from the Bureau have been the most accurate. Nonetheless, during the growth period of the 1950s and 1960s, the Bureau seemed to many educators conservative if not regressive in predicting a decline in the size of the age groups which would supply the college students of the 1980s, and even state agencies paid little attention to its forecasts. Many colleges and universities projected additional enrollments merely by extrapolating increases from preceding years. Some more sophisticated institutions used enrollment data from the several grades of feeder high schools, these schools' graduation rates, and the proportion of their graduates attending the institution--often with a slight add-on for good measure--to project enrollments. Most state coordinating agencies and statewide governing boards obtained similar enrollment figures from the high schools and undertook age-cohort and grade-survival studies to arrive at statewide projections--most of which were quite liberal, although much less so than

the aggregate projections of institutions, which taken together often exceeded the total age cohorts commonly attending college. Not until the late 1960s and early 1970s did these state agencies and boards become more realistic about future enrollment prospects in the face of inevitable declines in these cohorts.

The 1960 and 1970 Censuses had little direct impact on these enrollment forecasts, since even the Bureau of the Census made its projections primarily on the basis of its annual current Population Surveys. But the decennial censuses have provided baseline data that Bureau demographers and planners in all fields have taken as the most authoritative source regarding the size and location of the American population and the age, sex, and other demographic characteristics of the American people. Planners look forward to each census to provide new benchmarks for measuring social progress in housing, income, education, and employment. Beyond its original purpose of counting the population to establish state congressional representation, census information is now used by federal and state governments for funding purposes and by business and industry for detecting trends useful in marketing products and services. Thus for many government programs, funds follow population. Local governments and cities receive state financial aid according to their proportion of state population, while states receive between $50 billion and $75 billion a year in federal funds for highways, health, welfare, housing, job training, student aid, and a host of other functions according to formulas involving census counts. Business and industry use census data, among other reasons to pinpoint probable clientele down to particular city blocks. And many private demographic companies use census data in producing maps, charts, graphs, and analyses both for business and industry and for government. Thus planners familiar with the data produced by the 1970 Census have awaited the results of the 1980 Census with particular anticipation for comparative purposes; and in higher education, far more planners and administrators have hoped to use 1980 Census data than did so in 1970.

DEVELOPMENT AND SCOPE OF THE 1980 CENSUS

The preparation for a new decennial census begins almost immediately after completion of the preceding one and long before the information from the previous one has been published. Competition centers on those few questions to be asked of everyone in the nation and desired by various special-interest groups. For example, in the 1980 Census, myriad proposed questions were winnowed down to seven concerning population characteristics and twelve concerning housing that would be answered by every person. These 19 "short

form" questions are numbered 1-7 for population and for "Housing" H1-H12 in Table 1 on the next two pages, which also lists the major items on the "long" forms of both the 1970 and 1980 questionnaires as well as indicating the percentage of the population to whom they were administered. Together, the 19 short form questions allow a total of 322 response options from which respondents could choose and took about 15 minutes to complete. (Among changes between 1970 and 1980, the 1980 short form included 15 response categories on national origin and did not use the word race, in contrast to the nine categories for "race" in 1970.)

The 1980 long form consisted of the 33 questions on population characteristics and 32 on housing listed in Table 1, with some questions divided into several parts, for a total of 2,220 response options. It was administered to one in every five persons in places of over 5,000 population and to one in two elsewhere, for a total sample of about 19 percent. (A copy of both forms, annotated by American Demographics, is included in Appendix A.)

The great economic, social, and technlogical changes in American society during the 1970s might lead one to suppose that the items in the 1980 Census might all be as different from those on the 1970 forms as that for national origin or race. Yet this is not the case, as can be seen in Table 1, despite the many importunings of special interest groups to include "their" questions. In 1980, the number of "short form" population items increased by one (Spanish origin), housing items dropped by two, and the item condominium was substituted for basement. (Appendix B identifies each of the changes made in these complete count items between 1970 and 1980.)

A greater change between 1970 and 1980 occurred in sampling rates and "long form" items. In 1970, various size samples of the population were used depending on the item, with some questions asked of only 5 percent of the population, some of 15 percent, and others of up to 20 percent. In 1980, however, an increase to about 19 percent for all sample items increased the reliability of the data as well as provided uniformity across all sample items. Among the sample items, some from 1970 in both population and housing were dropped entirely for 1980 and others were added. The total number of sample items in 1980 was shorter for a more complex society than in 1970, with cost having a bearing on the number. The 1980 Census is estimated to have cost $1 billion, and already the Government Accounting Office speculates that the 1990 Census will cost about $4 billion (The Numbers News, March 15, 1982). If the number of items in 1990 is smaller than in 1980, the 1990 Census will be much less useful than 1980's.

TABLE 1

COMPARISON OF ITEMS ON THE
1980 AND 1970 QUESTIONNAIRES

Item # on 1980 questionnaire		Percentage of the questionnaires including the item	
	Population Items	**1980**	**1970**
1.	Name	100%	100%
2.	Household relationship	100	100[1]
3.	Sex	100	100
4.	Race	100	100[1]
5.	Age	100	100
6.	Marital status	100	100
7.	Spanish origin	100	5[1]
8.	School enrollment and type	5[2]	15
9. 10.	Years of school completed	5	20
11.	Place of birth	5	20
12a.	Citizenship	5	5
12b.	Year of immigration	5	5[1]
13a.-c.	Current language and ability to speak English	5	—
14.	Ancestry	5	—
15.	Residence 5 years ago	5	15
16.	Age screening question (items 17-33 are limited to persons 15 years old and over)	5	20
17.	Activity 5 years ago	5	20
18.	Veterans status and period of service	5	15[1]
19a.-b.	Work disability	5	5[1]
19c.	Public transportation disability	5	—
20.	Children ever born	5	20
21.	Marital history	5	5
22. 25. 26.	Employment status	5	20
22.	Hours worked last week	5	20
23.	Place of work	5	15
24a.	Travel time to work	5	—
24b.	Means of transportation to work	5	15[1]
24c.-d.	Carpooling	5	—
27.	Year last worked	5	20
28.	Industry	5	20
29.	Occupation	5	20[3]
30.	Class of worker	5	20
31b.	Weeks worked last year	5	20
31c.	Hours usually worked per week last year	5	—
31d.	Weeks unemployed last year	5	—
32. 33.	Income, by type	5	20[1]
Derived[4]	Family size and household size	100	100
Derived	Family type and household type	100	100
Derived	Poverty status	5	20
Derived	Type of group quarters	5	20
Derived	Spanish surname[5]	5	20
Derived	Spanish heritage	—	20
Derived	Foreign stock	—	15
	Mother tongue	—	15
	Birthplace of parents	—	15
	Vocational training	—	5
	Industry and occupation 5 years ago	—	5
	Duration of disability	—	5
	Housing Items		
H1. to H3.	Coverage questions[6]	100	100
H4.	Number of living quarters at address	100	100
H5.	Access to unit	100	100
H6.	Complete plumbing facilities	100	100[1]

TABLE 1

(Continued)

Item # on 1980 questionnaire		Percentage of the questionnaires including the item	
	Housing Items—Continued	1980	1970
H7.	Number of rooms	100	100
H8.	Tenure	100	100
H9.	Condominium identification	100	100[3]
H10.	Acreage and commercial establishments	100	100
H11.	Value	100	100
H12.	Contract rent	100	100
C1. C2.	Vacancy status	100	100
C3.	Boarded-up status	100	—
D.	Duration of vacancy	100	100
H13.	Units in structure	5	20
H14a.-b.	Stories in structure and presence of elevator	5	5
H15.	Farm status	5	20[3]
H16. H17.	Source of water and sewage disposal	5	15
H18.	Year structure built	5	20
H19.	Year householder moved into unit	5	15[3]
H20.	Heating equipment	5	20
H21a.-c.	Fuels used for house heating, water heating, and cooking	5	15
H22a.-d.	Cost of utilities and fuels (component of gross rent and selected monthly owner costs)	5	20
H23.	Complete kitchen facilities	5	100
H24.	Bedrooms	5	5
H25.	Bathrooms	5	15
H26.	Telephone	5	100[3]
H27.	Air conditioning	5	15
H28.	Automobiles available	5	15
H29.	Vans or light trucks available	5	—
H30. to H32.	Selected shelter costs for homeowners	5	—[3]
Derived	Persons in unit (household size)	100	100
Derived	Persons per room	100	100
Derived	Gross rent	5	20
Derived	Selected monthly owner costs	5	20
	Basement	—	100
	Clothes washing machine	—	5
	Clothes dryer	—	5
	Dishwasher	—	5
	Home food freezer	—	5
	Television	—	5
	Battery radio	—	5
	Second home	—	5

[1] 1980 version is significantly changed from 1970 version in concept or amount of detail.

[2] "5" indicates sample information asked on the long-form questionnaire. 1980 items asked on a sample basis are asked of 16 2/3 percent of all housing units, EXCEPT for governmental jurisdictions of less than 2,500 inhabitants where this sampling rate is changed to 50 percent of all housing units. In combination, the two sampling rates produce a national sampling rate of approximately 19 percent.

[3] The question is not significantly different; the classification system (which is independent) is very different.

[4] "Derived" refers to items which do not appear on the questionnaire but, instead, are calculated by combining information from other items. For example, while no question specifically asks family size, family size can be determined based on responses to the household relationship question.

[5] In five Southwestern States only.

[6] These questions help ensure that the coverage of household members is complete.

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POTENTIAL UTILITY OF THE 1980 CENSUS FOR ACADEMIC PLANNING

On the cover of the 1980 Census forms, the Bureau of the Census rightly declared that "the census is a vitally important national activity." It explained to respondents that "your answers, when combined with the answers from other people, will provide the statistical figures needed by public and private groups, schools, business and industry, and Federal, State, and local governments across the country. These figures will help all sectors of American society understand how our population and housing are changing. In this way, we can deal more effectively with today's problems and work toward a better future for all of us."

Educators can be among the chief users of census data in order to deal more effectively with these problems and work toward this better future. Without exhausting the list of items helpful to higher education, the documents to be published in various ways by the Bureau of the Census from the 1980 Census will include for geographic subunits the age of the population by individual years and by ranges particularly appropriate for educational planning; sex; national origin; family income in ranges; educational attainment; current enrollment in school; highest degree obtained; ability to speak English; and whether a foreign language is spoken in the home, as well as such housing characteristics as the number of persons in each household, number of children, occupations of family members, cost of housing, number of persons per room, age of buildings, length of residence, presence of telephones, and number of automobiles. When analyzed singly or in combination, these and other items can provide a vast amount of data for planning at every institutional and geographical level of education, from pre-school to adult education and from local neighborhood to state regional systems. Ideas for such analyses at the statewide postsecondary level are suggested in Chapter Three below, but some indication of them may be evident from the summary of selected California data from the first data tape released by the Bureau of the Census that appears in Table 2. (Because the tape from which Table 2 is drawn was later corrected, California's total 1980 population was 23,667,565--or 341 less than the 23,667,906 listed there; and this figure may be changed in the final printed reports due in 1983.) Tables similar in format to Table 2 are available for each of California's counties. Copies for particular counties can be obtained by contacting the Editor of Publications, California Postsecondary Education Commission, 1020 Twelfth Street, Sacramento, CA 95814 (916-322-8021).

TABLE 2

SELECTED POPULATION AND HOUSEHOLD CHARACTERISTICS, CALIFORNIA, 1980

1.1a Population and Household Characteristics

Universe: Persons	Number	Percent
Population By Race, Including Hispanics	23,667,906	100.0
White	18,030,892	76.2
Black	1,819,281	7.7
Native American	281,369	0.9
American Indian	190,155	98.4
Eskimo	1,734	0.9
Aleut	1,480	0.7
Asian and Pacific Islander f4	1,283,818	5.3
Japanese	261,822	20.9
Chinese	322,389	25.7
Filipino	357,492	28.6
Korean	103,845	8.3
Asian Indian	57,901	4.6
Vietnamese	89,681	7.1
Hawaiian	23,806	1.8
Guamanian	17,673	1.4
Samoan	20,809	1.6
Remaining Races f3	2,362,541	10.0
Population by Race, Excluding Hispanics	19,123,575	100.0
White, not Hispanic	15,763,991	82.4
Black, not Hispanic	1,783,810	9.3
Nat Amer and Asian/Pac Isl, not Hispanic	1,349,865	7.1
Remaining Races, not Hispanic	226,708	1.2
Hispanic by Origin	4,544,331	100.0
Mexican	3,637,466	80.0
Puerto Rican	93,038	2.0
Cuban	61,884	1.3
Other Hispanic	752,823	16.6
Hispanic by Race	4,544,331	100.0
White	2,266,901	49.9
Black	35,471	0.8
Native American, and Asian/Pac Isl f4	106,110	2.3
Remaining Races f3	2,135,841	47.0

Universe: Persons 15 Years and Older	Number	Percent
Population by Martial Status	18,813,136	100.0
Married, including separated	10,635,460	56.9
Never-Married	5,183,277	20.0
Divorced and Widowed	2,794,398	15.1

Universe: Persons	Male	Percent	Female	Percent
Population by Age/Sex	11,666,405	100.0	12,001,417	100.0
0-4 Years	873,639	7.5	834,761	7.0
5-13 Years	1,571,693	13.5	1,507,869	12.6
14-15 Years	387,788	3.3	374,581	3.1
16 Years and Over	8,833,453	75.7	9,285,826	77.4
16-17 Years	429,782	3.7	409,753	3.4
18-19 Years	461,499	4.0	434,775	3.6
20-21 Years	483,779	4.1	448,671	3.7
22-24 Years	729,289	6.3	694,226	5.8
25-34 Years	2,141,417	18.4	2,101,598	17.5
35-44 Years	1,405,997	12.1	1,408,941	11.7
45-54 Years	1,157,218	9.9	1,202,719	10.0
55-64 Years	1,048,726	8.9	1,153,842	9.6
65-74 Years	648,180	5.6	822,878	6.9
75 Years and Over	335,641	2.9	607,631	5.1
Median Age (Years)	29.8		31.8	

Universe: Households	Number	Percent
Persons in Households/Household Type f7		
Total Households f1	8,629,866	100.0
1 Person	2,130,878	24.7
Female Householder	1,195,702	56.1
2 or More Persons	6,498,988	75.3
Married-couple Family	4,759,841	73.2
Other Family, Female Householder	903,264	13.9
Other Family, Nonfamily Households	835,883	12.9
Median Persons per Unit f7	2.3	
Persons in Households 65 Years and Over f7	1,741,065	100.0
1 Person	669,584	38.5
2 or More Persons	1,071,661	61.5

Universe: Households With One or More Persons Under 18 Years by Type	Number	Percent
Total Households with Persons Under 18	3,261,268	100.0
Married-couple Family	2,448,932	74.8
Other Family, Male Householder	141,797	4.3
Other Family, Female Householder	635,593	19.5
Nonfamily Households	43,038	1.3
Related Children, Under 6 Years f8	1,676,392	27.8
Related Children, 6-17 Years f8	4,539,661	73.8

1.1b Housing Characteristics

Universe: Total Housing Units	Number	Percent
Total Housing Units	9,279,036	100.0
All Occupied Housing Units	8,629,866	93.0
Lack Complete Plumbing for excl use f13	128,136	1.5
Mean Number of Rooms	4.8	
Persons per Room, 1.01 or more	638,333	7.4
Homeowner Vacancy Rate	2.3	
Rental Vacancy Rate	6.1	
All Condominium Housing Units	414,934	4.8

Universe: Year-Round Housing Units	Number	Percent
Total Year-Round Housing Units	9,220,421	100.0
Owner Occupied	4,826,282	52.3
Lack Complete Plumbing for excl use f13	17,089	0.4
Median Value (Dollars) f11	84,700	
Renter Occupied	3,804,614	41.3
Lack Complete Plumbing for excl use f13	85,376	2.2
Median Contract Rent (Dollars) f12	253	
Vacant	590,555	6.4

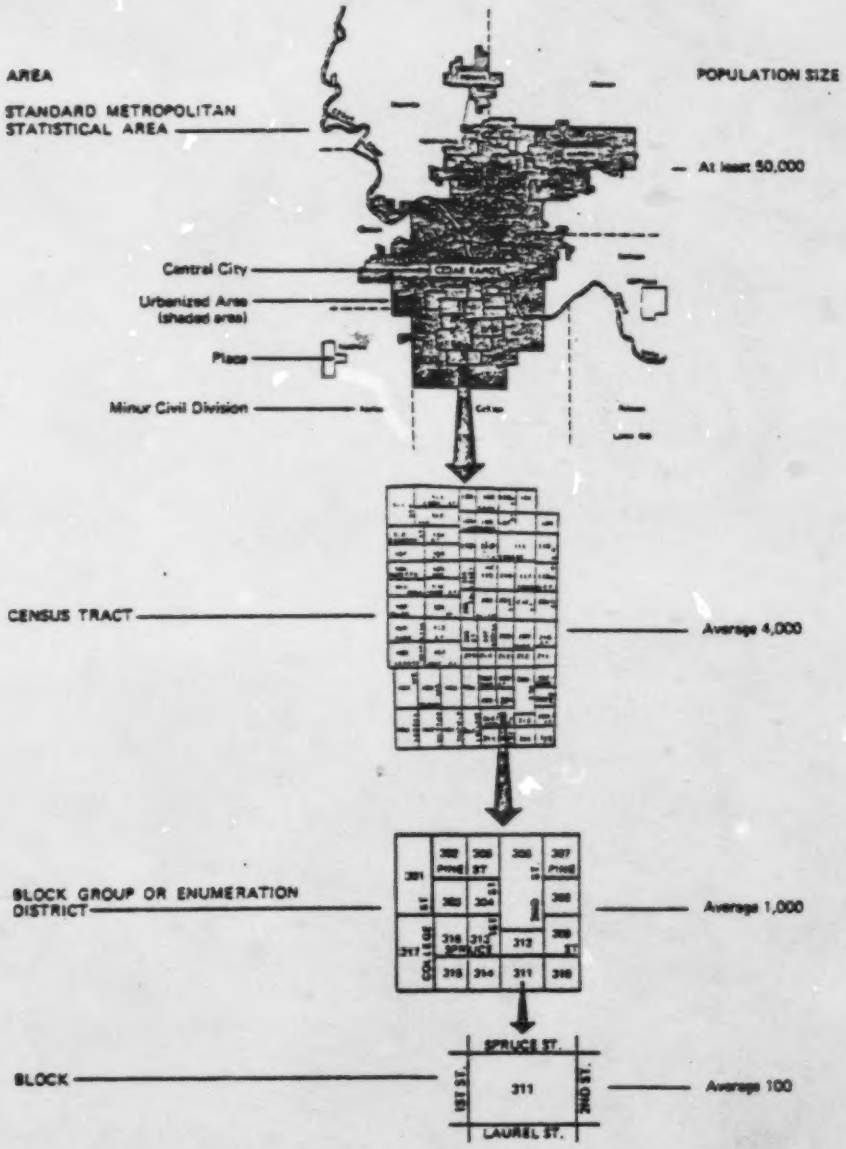
Source: 1980 Census data, run February 10, 1982 by the Lawrence Berkeley Laboratory.

The publications of the 1980 Census are being released in three series: 1980 Census of Population; 1980 Census of Housing: and a combined 1980 Census of Population and Housing. Through one classification or another, the Bureau of the Census intends to report population and housing data for every bit of United States territory where any people live. Some "places" in Alaska, for example, reported by the census had fewer than 25 people in 1980, and 94 "places" had fewer than 100. The threshold for a "place" in the contiguous 48 states, however, is at least 1,000 persons. Here, in densely populated states, cities, and Standard Metropolitan Statistical Areas (SMSAs; commonly referred to as "metropolitan areas"), the Bureau provides data on "places," "central cities," "suburbs," "minor civil divisions" collectively having over 50,000 population, "census tracts" consisting of about 4,000 persons, and "block groups" consisting of a number of city blocks composed of about 1,000 persons, as well as "blocks" bounded by four streets and composed of an average of 100 persons. Figure 1 demonstrates the method used by the Bureau in designating these various geographic areas. In addition, the Bureau reports data in "nonmetropolitan areas" by county, place, "census county division," and "enumeration district." Figure 2 illustrates these geographic units, and a glossary of these geographic terms as used by the Bureau appears in Appendix C.

Each of these geographic divisions has its special uses for government, business, industry, and other interest groups including school systems and colleges. Those of particular use to higher education depend on the type of institution or system involved. For a community college or primarily commuter-oriented institution, data on group blocks, census tracts, metropolitan areas, or one or more counties might best be analyzed for the implications that their populations have on its academic program, attendance rates, need for student aid, and similar matters. Officials of such a college can learn much about the local population through census data on these areas; and they can adapt its services to this population just as a business or industry markets its products--focusing on areas of greatest need or most likely to produce results. In contrast, decision makers of a regional state college or university might well look at data from several surrounding counties or nearby metropolitan areas to make similar judgments, while those at institutions with statewide drawing power could profitably study census data on the whole state and collections of counties to note trends affecting them. Institutions that draw many students from distant cities may find the demographic trends in those cities more important for planning than any others. State coordinating agencies or governing boards in small states or those without great in- or out-migration or changes in socioeconomic conditions, may find state-level data sufficient, but in most states, they will need to analyze data on a county-by-county basis--for example, in order to know the proportions of different ethnic groups and the degree to which English is spoken in each county.

FIGURE 1

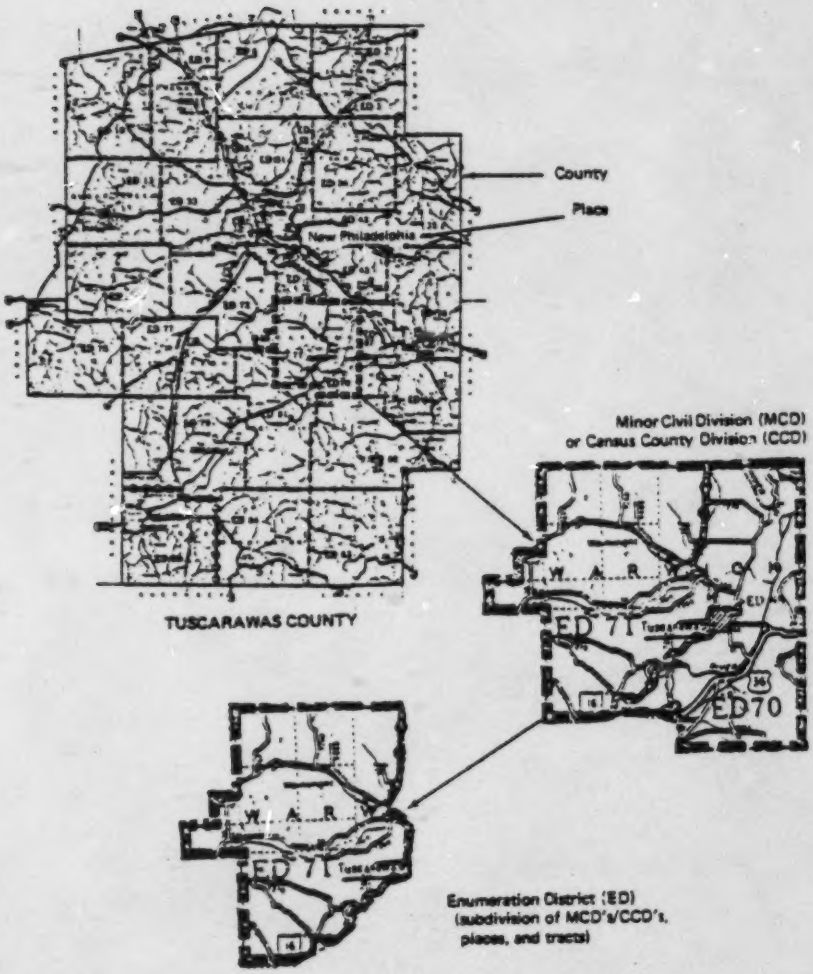
CENSUS GEOGRAPHIC AREAS--METROPOLITAN



Source: Bureau of Census, 1978.

FIGURE 2

CENSUS GEOGRAPHIC AREAS--NONMETROPOLITAN



Source: Bureau of the Census, 1978.

In California, the several levels of geographic units for which 1980 Census data will be available are listed in Tables 3, 4, and 5. In addition to the tabular data available for these geographic divisions, the Bureau of the Census will issue the several series of maps described in Table 6. For California, a complete set of these maps, when available, will cost almost $4,000. For higher education, the Metropolitan Map Series (MMS), the Vicinity Map Series (VMS), and the County maps would seem of most value, both for individual colleges and universities and for statewide or system offices.

In sum, although seldom used directly in the past by educational planners and administrators, census data have the potential of much use by them; and by reviewing the geographic sources of recent and current students, college and university leaders can determine which of the census's geographical units most applies to their institution and eventually obtain data on these units that should aid them in their planning.

TABLE 3

NUMBER OF CENSUS TRACTS, ENUMERATION DISTRICTS,
BLOCK GROUPS AND BLOCKS
CALIFORNIA COUNTIES, 1980

County	Number of Tracts	EDs	Block Groups	Blocks
Alameda	296	2	1,142	10,289
Alpine	—	10	—	—
Amador	—	35	—	—
Butte	36	120	63	913
Calaveras	—	31	—	—
Colusa	—	15	—	—
Contra Costa	158	—	708	6,705
Del Norte	—	51	—	—
El Dorado	19	99	39	619
Fresno	109	216	419	5,410
Glenn	—	33	—	—
Humboldt	26	195	65	1,038
Imperial	25	119	60	692
Inyo	—	62	—	—
Kern	84	54	406	6,590
Kings	18	80	30	495
Lake	—	76	—	—
Lassen	—	50	—	—
Los Angeles	1,644	44	6,382	63,205
Madera	12	68	28	43
Marin	49	23	237	2,034
Mariposa	—	26	—	—
Mendocino	3[a]	116	17	219
Merced	24	63	71	1,157
Modoc	—	40	—	—
Mono	—	31	—	—
Monterey	69	63	187	2,888
Napa	20	22	132	944
Nevada	12	66	—	—
Orange	418	—	1,355	15,133
Placer	28	63	100	993
Plumas	—	30	—	—
Riverside	112	376	558	7,203
Sacramento	151	27	559	7,359
San Benito	—	46	—	—
San Bernardino	123	246	694	8,052
San Diego	384	127	1,375	15,005
San Francisco	156	—	614	5,259
San Joaquin	86	41	442	4,253
San Luis Obispo	30	193	46	841

(continued)

TABLE 3

(Continued)

County	Number of Tracts	RDs	Block Groups	Blocks
San Mateo	146	5	552	5,917
Santa Barbara	68	74	129	2,958
Santa Clara	261	6	1,131	11,513
Santa Cruz	45	20	178	1,971
Shasta	27	61	47	1,277
Sierra	—	11	—	—
Siskiyou	—	105	—	—
Solano	64	25	243	2,328
Sonoma	59	139	238	2,438
Stanislaus	57	—	397	4,205
Sutter	11	17	41	575
Tehama	3[a]	52	11	249
Trinity	—	25	—	—
Tulare	51	201	120	2,377
Tuolumne	—	61	—	—
Ventura	114	42	430	4,851
Yolo	25	58	68	1,007
Yuba	11	23	37	524
State Total	5,034	3,884	19,451	209,969

[a]Block Numbering Areas.

Source: California State Data Center, 1981.

TABLE 4

STANDARD METROPOLITAN STATISTICAL AREAS
CALIFORNIA, 1980

Name	Counties Included	Number of Tracts	EDs	Block Groups	Blocks
Anaheim-Santa Ana-Garden Grove	Orange	418	--	1,355	15,133
Bakersfield	Kern	84	54	406	6,590
Chico	Butte	36	120	63	913
Fresno	Fresno	109	216	419	5,410
Los Angeles-Long Beach	Los Angeles	1,644	44	6,383	63,205
Modesto	Stanislaus	57	--	397	4,205
Oxnard-Simi Valley-Ventura	Ventura	114	42	430	4,851
Redding	Shasta	37	61	47	1,277
Riverside-San Bernardino-Ontario	Riverside, San Bernardino	235	622	1,252	15,255
Sacramento	Placer, Sacramento, Yolo	204	148	727	9,359
Salinas-Seaside-Monterey	Monterey	69	63	187	2,888
San Diego	San Diego	384	127	1,375	15,085
San Francisco-Oakland	Alameda, Contra Costa, Marin, San Francisco, San Mateo	805	30	3,253	30,204
San Jose	Santa Clara	261	6	1,131	11,513
Santa Barbara-Santa Maria-Lompoc	Santa Barbara	68	74	229	2,958
Santa Cruz	Santa Cruz	45	30	178	1,971
Santa Rosa	Sonoma	59	139	238	2,438
Stockton	San Joaquin	86	41	441	4,253
Vallejo-Fairfield-Napa	Napa, Solano	84	47	375	3,272
Visalia-Tulare-Portersville	Tulare	51	201	120	2,377
Yuba City	Sutter, Yuba	27	48	78	1,099

Each of the 30 counties included in the SMSAs listed above is completely divided into census tracts. In addition, the following 8 counties are completely tracted:

El Dorado, Humboldt, Imperial, Kings, Madera, Merced, Nevada, San Luis Obispo

For the remaining 20 counties, tracts were not established. Instead, enumeration districts form the smallest geographic area.

Source: California State Data Center, 1981.

TABLE 5

URBANIZED AREAS
CALIFORNIA, 1980

Antioch-Pittsburg
Bakersfield
Chico
Fairfield
Fresno

Hemet
Lancaster
Los Angeles-Long Beach
Modesto
Napa

Oxnard-Ventura-Thousand Oaks
Palm Springs
Redding
Sacramento
Salinas

San Bernardino-Riverside
San Diego
San Francisco-Oakland
San Jose
Santa Barbara

Santa Cruz
Santa Maria
Santa Rosa
Seaside-Monterey
Simi Valley

Stockton
Visalia
Yuba City
Yuma (California Portion)

Source: California State Data Center, 1981.

TABLE 6

1980 CENSUS MAPS

Maps are particularly helpful when working with lower levels of Census Geography (blocks, EDs, and tracts) because they are the only method of locating the specific geographical boundaries of the area being studied. There are several series of maps that show census boundaries:

Metropolitan Map Series (MMS) maps cover the urbanized portion of SMSAs. Each map sheet shows the names of streets and other significant features, boundaries and names (or numbers) of places, census county divisions, congressional districts, census tracts, enumeration districts, and blocks.

Vicinity Map Series (VMS) maps are comparable to the Metropolitan Map Series but cover urban places outside of SMSAs.

County maps cover those portions of counties not covered by the Metropolitan Map Series and all of those counties outside of SMSAs. They show the same types of boundaries that are shown on the Metropolitan Map Series. County maps are usually reproductions of maps obtained from individual State highway departments with Census Geography superimposed.

Place maps cover all 1980 census incorporated and census designated places not included on the Metropolitan Map Series. Place maps, usually based on maps supplied by local agencies, identify streets and show boundaries for places, census county divisions, congressional districts, enumeration districts, and when appropriate, census tracts and blocks.

Tract Outline maps show the boundaries and numbers or names of census tracts, counties, and all places with a population of 10,000 or more for all SMSAs. Only streets and map features which form tract boundaries are shown on the maps.

Source: California State Data Center, 1981.

TWO

LIMITATIONS OF THE 1980 CENSUS FOR POSTSECONDARY PLANNING

The utility of the 1980 Census for college and university planning depends on (1) the availability of its data, (2) the technology used by the Bureau of the Census to release the data, (3) the reliability of the data, and (4) the accuracy of projections that can be drawn from the data. These issues are the topics of this chapter.

AVAILABILITY OF 1980 DATA

After "amost two years and $1 billion," The Wall Street Journal reported on March 9 of this year, ". . . the Census Bureau can tell you little more about Americans than it could before the 1980 census." This statement summarizes the current frustrations of users of census data.

Over the years, the Bureau of the Census has earned a reputation for exactness, promptness, and reliability regarding its data. The importance of the data to so many different users, from commercial pollsters who use its sample household bases for survey purposes to school districts planning building construction and closing, has encouraged the Bureau to exert every effort to serve its clientele faithfully and fully. The more accurate the Bureau's data, the more likely users would be to base good decisions on them. And in past decades, the Bureau's functions, budget, and staff of experts grew because of the confidence it had earned.

The 1980 Census has lowered, in the short run at least, the public esteem of the Bureau. The staff director of the House Subcommittee on Census and Population has complained that "by the time people get what they need, it'll be way out of date." An auditor in the General Accounting Office says, "The data is already too late; if it's not current, it's not relevant" (The Wall Street Journal, March 9, 1982). Many users are still making do with 1970 data, awaiting adequately detailed 1980 data. The 1980 data now being released are, on average, more than a year behind schedule. In 1979, the Bureau promised that all its 1980 data would be released by April 1982--the second anniversary of the count. By that date, however, not even the first printed volume was available. In 1981, the Bureau was able to provide overall population figures to the

states so that reapportionment of the House of Representatives could take place, but these figures were much disputed by some states who claimed undercounts as the reason for losing a representative or two. City counts of the population have also been widely disputed, and because billions of federal and state dollars depend on those counts, cities have gone to court to obtain Bureau data on who filled out census questionnaires at what addresses. The courts have not been sympathetic to the cities, indicating that such data is confidential and that other governmental bodies have no legal right to "monitor" the Bureau's census counts. The Bureau promises confidentiality to respondents, especially important to minority groups and illegal immigrants, in order to ensure a full count; and at least partially because of its assurances, the Bureau counted five and a half million more people in the 1980 Census than it had expected. It appears unlikely that this confidentiality will be destroyed by the courts. While these cases have not accounted entirely for the Bureau's delay in reporting certain data, they have tended to delay final reporting.

A more direct cause of delay has been Reagonomics. Because of budget cutbacks, the Bureau of the Census has been unable to hire the extra people required to computerize data, set up table shells, and eliminate inevitable defects from programs. Indeed, as of March 19, 1982, it was forced to lay off 500 permanent personnel and to place all remaining employees, including its director, on furlough for one of every ten working days through May. These budget cuts caused massive disruptions as senior staff bumped lower-level personnel, analytical and computer staff were reduced, morale lowered, and productivity impaired.

Besides budget cuts, another reason for the delay in releasing the data according to The Wall Street Journal, has been the inadequacy of the Bureau's ancient computers to handle the load planned for them--a failure of foresight that can be laid to Bureau administrators after the 1970 Census.

As a result of these several problems, complete and final 1980 Census data will not be available in printed form until mid-1983 at the earliest.

TECHNOLOGY FOR RELEASE OF DATA

Despite these publication delays, the Bureau made available, in computer tape STF-1A, data on all 19 of the "short form" or 100 percent items, broken down to the census-tract level for each state. In April 1982, on Tape STF-1B, these data were broken down

to the group block and block levels which are so important to local government, business, and industry. Data on the 65 additional "long form" or "sample" items regarding employment, income, school enrollment, educational attainment, and household characteristics are not yet available, however, at the county or lower levels either on tape or in separate state publications. These data are being compiled first for the smaller states, leaving the largest such as New York and California to the very end--according to a Bureau spokesman, "so that we can get the bugs out first" (The Wall Street Journal, March 9, 1982).

A number of census reports formerly available in printed form will be available for the 1980 Census only on tape or microfiche. Appendix D lists estimates of the Bureau of the Census for the release dates of its major data tapes, printed volumes, and microfiche files, but most of these dates have now been extended by from three to six months. For most large universities and other major users of census data, the restriction of some data to tape or microfiche will not impede their use. Yet smaller institutions may be hampered by the lack of printed products, especially those containing cross-item analyses. A complete set of STF-1 data tapes for California costs between $840 and $2,940, depending on the technical capabilities of the computer used to access the data. Cost of microfiche for California when available will probably be less than $200, but Bureau paper prints of microfiche will cost considerably more, judging from existing prices. For example, the Massachusetts STF-1A microfiche costs $68, but its paper print costs $2,580.

As a final note on the availability of information, the Data Users Division of the Bureau, which handles distribution and consultation service on Bureau products and which is now entering its most active period in the decade, is losing 28 of its 120 staff members, and 10 vacant positions will remain unfilled. The Division's technical documentation staff is losing seven of its ten-member staff, and after the accompanying "riffing" and "bumping" will have eight members. Hence service is likely to be slower than in the past. Indeed, unless orders are placed prior to the release date of a particular product, one must wait for its second "printing."

RELIABILITY OF CENSUS DATA AND RESULTING POPULATION ESTIMATES

The reliability of 1980 data cannot yet fully be judged. The Bureau maintains that the 1980 Census was the most accurate of any to date, although its admitted undercounting of ethnic minorities

may make local, state, and regional totals for areas with high proportions of minorities particularly unreliable.*

The most telling argument of the Bureau for the reliability of its 1980 data are the 5.5 million people identified in the 1980 census who were unaccounted for by population projections and estimates up until census day. On the other hand, this 5.5 million discrepancy, out of a total increase from the 1970 census of 23.2 million, can be considered a substantial error in Bureau estimating--particularly by an agency that offers estimates of the American population second-by-second throughout the year at the Commerce building in Washington, D.C., and whose estimates and projections have been assumed to be more accurate than those of private demographic analysts or state and local governments.

How could the Bureau underestimate the population increase between 1970 and 1980 by well over 20 percent? The answers so far provided both by the Bureau and by outside experts put in some jeopardy its reputation for reliability. Bryant Robey, editor of American Demographics, writes that (1982, p. 40):

> Early returns from the 1980 Census show that the Census Bureau population projections understate the likely differences in population trends among the different regions of the country because the projections are based upon inaccurate assumptions. For one thing, the Census Bureau underestimated the extent of migration among regions during the 1970s. For another, bureau projections could not estimate the extent of illegal immigration. As a result, the projections overestimate the number of young adults in the Northeast and underestimate them in the South and West.

The Numbers News for October 19, 1981 (No. 10), states the case more graphically:

> Comparison of population estimates and 1980 census results reveals "a definite pattern of major deficits in the postcensal [1970] estimates for the states of the South and West and of relatively small differences for the states of the Northeastern and North Central regions" the Census Bureau reports.

*Based on matching households in the Current Population Survey with 1980 Census returns, the Bureau estimates that the 1980 Census missed 5.1 percent of Blacks and 4.4 percent of non-Black Hispanics, but overcounted whites by 0.3 percent, for a total undercount of 0.6 percent, compared to a 1970 Black undercount of 7.7 percent and total undercount of 2.2 percent (The Numbers News, October 19, 1981).

The Number News illustrates these "major deficits" by the fact that in Nevada, the census counted 10.06 percent more residents than estimated, in Arizona 8.03 percent, and in Florida 7.51 percent. At the other extreme, Alaska's census count was 2.2 percent lower."*

Illegal immigration undoubtedly accounted in part for the mistaken estimates of the Bureau between 1970 and 1980 about population growth in the South and West, where most legal immigrants and probably most illegal immigrants as well have recently located. Estimates of illegal immigrants in the country range from below two million to as many as nine million, with the Bureau of the Census estimating that the number "is almost certainly below 6.0 million and may be substantially less, possibly only 3.5 to 5.0 million" (American Demographics, October 1981, p. 22). Of this number, probably fewer than three million are Mexican nationals. But as many as two-thirds of the total may reside in California and the rest of the Southwest. Since the Bureau can count in the census only those who are willing to be counted and then statistically assume a certain percentage of undercounting of all its figures, those data for illegals are probably most prone to error. This likelihood affects state totals in such Southwest and Pacific states as California disproportionately to others.

In summary, the 1980 Census was probably the most accurate of any decennial census, although its undercounting of minorities and illegal immigrants affects the accuracy of regional and state data in geographic areas most susceptible to illegal immigration. The discrepancy of 5.5 million between 1980 estimates and the census indicates that something is amiss with the projection or estimating techniques of the Bureau. Such techniques become more and more important during the decade until the next census. The Bureau is currently reassessing its estimating techniques, but unless it improves its techniques for estimating both population increase and regional migration during the 1980s, users should be increasingly cautious about the reliability of these estimates as the decade of the 1980s moves forward in time. Although the idea of a census every five years was much talked about in the last decade--among other reasons, to verify such estimates--it seems highly improbable for 1885, now that the cost of the 1990 Census is already being criticized as exorbitant by the General Accounting Office.

*The Joint Center for Urban Studies of Harvard and MIT predicts that the migration of young people to the Southwest will not be as great in the 1980s as in the 1970s because of high costs of living and housing. It foresees that the Pacific states will be a slower growth area than the remainder of the West, although the West will continue to grow much faster than the national average (Robey, 1982).

UTILITY OF CENSUS DATA

Census data for 1980--if not population estimates between censuses--are as accurate as it seems possible to make them, but are they the particular data that users need? Some of the questions that have been raised about them include these: Are they the most important data needed by the society? Do they reflect social and lifestyle trends as well as demographic and economic shifts? And are they collected frequently enough to indicate current conditions?

In the August 24, 1981, issue of U.S. News and World Reports, its staff economists showed how errors and inaccurate assumptions in important national economic indicators (including the Consumer Price Index of the federal Bureau of Labor Statistics) may mislead decision makers regarding the rate of inflation, trade deficits, the gross national product, amount of business investment, store sales, personal income, and unemployment. The Bureau of Labor Statistics is undertaking needed improvements in its basic statistical indicators, and similar reassessment is desirable by other government agencies that collect and analyze population and economic data including the Bureau of the Census.

However accurate the census data were in 1980, as noted above, they become less and less so, as the years go by. For instance, the 1980 Census reported the United States population as 226,545,805 and California's population as 23,667,565, with 66.3 percent of the American population over the age of 25 having a high school diploma and 16.3 percent having a college degree. But what would each of these figures be today, two years after the census was taken? We do not know with any high degree of certainty, nor are we ever likely to. The assumptions built into the Bureau's projection and estimating techniques can never fully encompass the vast number of changes occurring in a dynamic society such as the United States or particularly California.

Michael Batutis, a contributing editor to American Demographics, states that "there are many ways to estimate current population, but there is no best way. Even categorizing estimates is difficult because there are many variations and combinations of the standard methods." He believes that "the Census Bureau's estimates are reasonably consistent over time, and they cover areas throughout the nation uniformly. But they may not be the most useful for the level of geography you are interested in, and they are not as up-to-date as estimates from private companies" (1982, pp. 42, 44).

How accurate then are estimates likely to be for California that are made from the 1980 Census? Almost 20 percent of the Bureau's

undercount in its 1970s' projections of the U.S. population in 1980 occurred in California. Hence the Bureau's late 1970s' estimates for California were in gross error. New assumptions and new techniques eventually produce more accurate Bureau estimates during this decade, but so far no assurance exists about an improvement over the 1970s. Moreover, accurately estimating the population of California will not be as difficult as estimating that of California's counties or subdivisions of counties.

More than perhaps any other state in the nation, California presents particularly difficult problems for making accurate projections. Among those of particular concern to postsecondary planners are the following:

- The "Pacific" Factor: As noted above, states in the South and West have been growing faster than the national average, but some indications exist that California will not be as attractive for in-migration in the future as it was in the past or as in other Pacific states. How much its especially high housing costs, its generally high costs of living, and its other detriments will counteract the attractiveness of its Pacific location may vary during the decade, depending on a multitude of national and regional economic issues.

- The Singles Factor: The increase in the number of single Californians over the past two decades would seem to indicate a steady trend throughout the 1980s for the State, whose past increase in population can be attributed in large part to in-migration of young people. Yet Melko and Cargan (1981, p. 30) conclude that as the baby boom generation of the 1950s and 1960s grows older, the singles population will "probably not continue to grow as a percentage of the total population."

- The Immigration Factor: Representative Richard Ottinger of New York has stated that immigration "now accounts for an estimated 40 to 50 percent of U.S. population growth" (1982, p. 33). Since the 1980 Census, the population of the nation has increased by 4.5 million people, which would ordinarily mean that California's population, being almost 10 percent of the nation's, would have grown by some 450,000, or to over 24 million. But because California receives a disproportionate share of Asian and Mexican immigrants (both legal and illegal), its population probably has grown more than this.

- The Ethnic Factor: All planners for higher education are aware of the difference in rates at which young people from various ethnic groups graduate from high school and enter college. California, with its special programs of financial and educational aid, has increased some of these graduation and admission

rates to higher levels than the average for the United States, but across all minority groups, except Chinese and Japanese, they remain substantially lower than those for the white population. The sheer numbers of different ethnic groups in California increases the difficulties of these educational projections. California's 1980 population included, in addition to 18 million whites, 4.5 million Hispanics (of whom 80 percent were Mexican), 1.8 million Blacks, and between 100,000 and 350,000 each of American Indian, Japanese, Chinese, Filipino, and Korean, along with lesser numbers of many other races who collectively accounted for another 212,000. Some of these smaller groups are so new to the State that no records exist as to what their high school graduation rate will be.

- The Baby Boom Factor: As is now evident, America's number of live births is once again increasing. Martin O'Connell, a demographer in the Bureau of the Census, states that its surveys indicate that "women would like to have, on the average, two children. But . . . the average woman is [now only] having between 1.76 and 1.88" (Wall Street Journal, March 4, 1982). Because of California's younger-than-average population, it will most likely gain more than an average share of youngsters in the next decade. On the other hand, California's proportion of working women, aging women, and large mortgages as well as its particular life styles may be reason for its birth rate to remain low. Even demographers in the Bureau disagree about the numbers of live births to expect nationally in the next two decades, and prospects for California are no less open to disagreement.

SUMMARY

As this chapter indicates, California's postsecondary planners face several difficulties in using data from the 1980 Census. They will be among the last to receive detailed 1980 data, and they will encounter major problems in estimating changes in the State's population since 1980 because of unknown variation in immigration and in-migration rates, varying high school graduation and college enrollment rates of different groups, and changing birth rates. Certainly they must be cautious in applying 1980 data to current and future conditions or relying on population estimates stemming from them. But rather than concluding that the 1980 Census will not be useful in aiding planning for postsecondary education in California, its data provide the basic demographic information on which this planning should proceed.

THREE

POSTSECONDARY ISSUES TO WHICH CENSUS DATA APPLY

Although higher education planners have in the past seldom used first-hand decennial census data in their work, the 1980 Census can aid them greatly in their understanding of present conditions and future prospects of higher education. For example, the age data in Table 7 for Californians in 1970 and 1980 contain major implications both for college and university leaders and state officials. The most obvious, of course, is the probable decline in the 18- to 24-year-old age group that has traditionally provided the bulk of full-time higher education enrollments. Where this decline occurs geographically in the State and when it occurs have implications for planning and budgeting at every Community College, State University, and University campus.

Until now, California planners relied on projections that did not have the benefit of 1980 Census counts. For example, the figures available to the California Postsecondary Education Commission for projecting the State's 1980 population under 20 years of age were

TABLE 7

SELECTED AGE GROUPINGS OF CALIFORNIANS
1970 AND 1980

	1970	1980	Difference
Under 5 years	1,642,683	1,708,063	65,380
5 - 9 years	1,918,327	1,650,307	- 268,020
10 - 14 years	1,963,681	1,795,875	- 167,806
15 - 19 years	1,817,379	2,130,324	312,945
20 - 24 years	1,740,966	2,355,662	614,696
25 - 29 years	1,457,614	2,233,145	775,531
30 - 34 years	1,219,389	2,009,953	790,564
All ages	19,953,134	23,667,565	3,714,431
Median age	28.1	29.9	

Sources: 1970: Bureau of the Census, 1971, Table 21, except for "all ages" which is from an updated count--PHC-3-06 California. 1980: Bureau of the Census, May 1981, Table 2.

about a quarter of a million short of the actual census count and about a third of a million short for those aged 18 to 24. These two discrepancies alone affected the Commission's conclusions regarding college attendance rates as well as the State's assumptions about allocation of funds for pre-college education versus college-level work. The existing projections should thus be reviewed and, if necessary, modified in light of the data from the 1980 Census illustrated in Table 2 above.

As important as such statewide numbers are, they are probably less critical for higher education planning than those regarding each of many important subgroups that overall numbers conceal. For instance, in Assembly Concurrent Resolution 151 of 1974, the Legislature directed California's public colleges and universities to overcome "ethnic, economic, and sexual underrepresentation" in the make-up of their student bodies. In Assembly Concurrent Resolution 201 of 1976, it directed them to overcome "the underrepresentation of handicapped students." And in AB 4325 of 1976, it directed that part-time students, most of whom are beyond the traditional college-going age "shall be treated equitably by California institutions of postsecondary education." For each of these five groups of concern to the Legislature, the census provides a population data base that, if used in relation to other data, can be vastly informative about their characteristics. The following sections of this chapter note the classes of census data relevant to each of these five groups and then discusses the State's goals of affirmative action and access in light of these data. The sections on ethnic groups and economic groups exemplify the use of census data for any population group, and what is said at length about them in those sections can be extended to the other groups, which are therefore discussed more briefly.

ETHNIC GROUP DATA

Ethnic minorities constitute not only a fourth of California's total population but an even larger and more rapidly growing proportion of its school- and college-age young people. The 1980 Census will give an exact count of each of 13 or more minority groups, depending on the breakdown of Hispanics, for each geographic unit of the State. For each of these groups, data will be available on all other items covered by the census. Among them, the following seem especially important for educational planning:

- Age: Ages can be broken down by year or grouped into pre-school, elementary, high school, and college-age cohorts. The average age of each ethnic group gives some hint of its probable growth in relation to the state population as a whole. (Most minority groups have a lower average age than whites.)

- School Attendance and Educational Attainment: The percent of each ethnic and age group attending school or college can be found along with the level of schooling completed by adults. As is well known, the level of educational attainment of parents affects the high school graduation and college-going rates of their children, particularly of girls, and also affects the enrollment of adults themselves in adult or continuing education. Attendance or enrollment data can provide forewarning of the need for special programs or services for certain ethnic groups as they advance through the educational system grade by grade.

- Ability to Speak English: One instructional service needed by a number of ethnic groups, perhaps at all age levels, is additional or concentrated instruction in English. The census gives the count of those who speak English "very well," "well," "not well," or "not at all" (Question 13c).

- Income: The income level of persons and of households can show what proportions of an ethnic group fall below the poverty level as well as in ranges along the continuum. Low-income groups can be targeted for appropriate student aid and services through all the years of schooling. Differential funding of schools or of public colleges may be considered when located in low-income areas since they may need extra funds to provide substantial help to students from low-income families.

- Marital Status: When compared to school attendance, age, and grade level, data on marital status may show effects of single parenting and divorce--both particularly high in California--on the academic development of children and their rate of school and college attendance. For example, such data may indicate whether single heads of households provide equal support for their children's attendance as two-parent households, as well as whether or not divorce or death of parents relates to their children's school and college enrollment.

- Sex: Differences in male and female attendance and educational attainment among different ethnic and age groups can be examined.

- Residence Five Years Ago: When analyzed with schooling, English-speaking ability, and age, these data can help indicate how quickly particular ethnic groups such as refugees from Southeast Asia or Mexican immigrants aculturate into American society, giving planners information for serving their educational needs.

- Residence in 1980: For every level of education and geographic area from county down to SMSA, census tract, block group, and block, these data provide planners with specific numbers of persons in the ethnic group with which educational institutions

must deal. Data from this question and that on the type of housing in which families live are some of the most valuable to be obtained from the census for state and institutional planners. For example, changes in the composition of neighborhoods, cities, and counties can be determined for most ethnic groups (but not for Hispanics, unfortunately) by comparing 1970 and 1980 data on them. (Appendix E explains the comparability of 1970 and 1980 data on race or ethnic origin.) The growing heterogeneity of the California population requires that educational planners recognize that concentrations of certain groups in particular locations may significantly change the social, economic, and educational structure of these areas and thereby the plans of nearby institutions.

- Employment: The 1980 Census data include the amount of employment the week prior to the census and for the year 1979 as well as type of occupation and household income for 1979. The census was conducted just as the current economic depression began, so these data must be used with caution in making assumptions about current or future conditions. Nonetheless, data on employment combined with those on sex and the number of children in the household may indicate any effects that parental employment, and particularly mothers' employment, has on schooling of children. Part-time and full-time employment may also be analyzed.

- Occupation: Data on the occupation of each person, along with age and level of schooling completed, may help to answer questions about the worth of schooling in job placement and upward mobility for each minority group.

These examples of what the 1980 census provides for educational planning affecting different ethnic groups merely illustrates the major variables found in the census. Similar examples can be made for any other groups of concern to planners, such as low-income, women, disabled, or part-time students, as illustrated below.

LOW-INCOME DATA

The 1980 Census reveals that 8.6 percent of California's families and 19.8 percent of its unrelated individuals subsisted below the poverty level in 1979. Its detailed data on income level can aid in setting state policies for student aid needed by families at various income levels. Other examples of census data relevant to educational opportunity for low-income students include the following:

- Age: Income data combined with age-levels data are helpful in educational planning, since income varies with age. Thus the median age of various population groups affects their average income level. This fact can help planners avoid a common error in analyzing ethnic group data. The average income of Blacks, Chicanos, Puerto Ricans, and some other minority groups is lower than that of whites; but their income is at least somewhat lower than that of whites because their average age is well below that of whites. The average white (now age 30) is thus closer to peak earning power than these minority groups, such as Hispanics with an average age of 23, many of whom are only now entering the labor force.

- Marital Status: The census covers a number of different categories of marital status, and each has its own contribution to make in an analysis of economic underrepresentation in postsecondary education. This analysis is furthered with data on living arrangements, such as single-person residences, family residence, and single parent families.

- School Attendance and Educational Attainment: Analysis of the years of schooling of individuals by income level and family status can also contribute to state policy on student aid and on institutional support to schools and colleges that serve large numbers of low-income students.

- Ability to Speak English: This factor is related to income and poverty status as well as to college-going, retention, and graduation rates, both of students themselves and their parents.

- Residence Five Years Ago: This element helps show the rate of in- and out-migration of low-income and poverty-level individuals and families within a locality or the state. County or census tract rates may be of particular interest to community colleges that have historically enrolled the greatest number of low-income students.

- Residence in 1980: This item gives, by each census geographic subdivision, the exact number of low-income individuals and families by income and age level.

- Employment: Both the type and amount of employment for 1979 are reported for each individual. Both can be analyzed in terms of years of schooling, age, marital status, and current school or college attendance while working or unemployed. They can also contribute to an assessment of the role education plays in upward mobility of low-income persons.

- Number of Rooms in Residence: When related to the number of children in the residence, this variable gives some idea of the amount or type of space that commuting students have for studying in privacy at home and could affect state and institutional policies on funding study facilities for colleges located in areas with low room-to-person ratios.

DATA ON MEN AND WOMEN

Underrepresentation of women has ended within the past few years at the undergraduate level in California higher education but remains a serious problem in graduate school and certain professional programs. Institutional enrollment data are more useful in reviewing these areas of underrepresentation than census data, but census data contain information relative to differences between men and women in educational attainment and attendance, occupation income, marital status, and as head of household (where work potentially keeps the breadwinner from education). Each of these elements can be analyzed by ethnic group, geographic area, or other variable in the census in order to better understand the problems that women face in continuing their education through graduate or professional school. All of these data are available from both the 1970 and 1980 Censuses, so trends may be discerned that can guide the State and institutions in facilitating women's continued study.

PEOPLE WITH DISABILITIES

The 1980 Census included one three-part question on this subject, as follows: "Does this person have a physical, mental, or other health condition which has lasted for six or more months and which (a) limits the kind or amount of work this person can do at a job? (b) prevents this person from working at a job? (c) limits or prevents this person from using public transportation?" (Question 19). Data from this question broken down into small geographic areas may show concentrations of handicapped people and help in planning appropriate educational programs for them. By assessing the age, occupation, amount of schooling, marital status, number of children, income level, housing and other characteristics of these people, educational planners may determine how colleges and universities can better contribute to the welfare of the disabled.

ADULT STUDENTS

As noted above, the California Legislature has identified equitable education of part-time students as a state priority. Census data from a number of items can be analyzed to determine the characteristics of everyone enrolled in school or college during February or March 1980, and the educational attainment of all persons over 16 years of age. This information on adults engaged in education is far more accurate than that derived from other types of research. The following variables drawn from the census are among the most helpful for this analysis:

- Educational Attainment and Current Attendance: The number of years of schooling completed by every person can be compared to current enrollment in school or college.

- Age: The number and proportion attending at ages 16, 17, 18, 19, 20, 21, 22-24, 25-29, and 30-34 can be determined.

- Occupation: Jobs can be matched with college attendance by age, sex, and other characteristics.

- Income Level: Educational attendance tends to parallel income levels as well as previous educational attainment, in that the greater a person's income and prior education, the greater the chances of continuing education.

- Hours Worked Last Week: This factor can also be compared with college attendance by age, sex, and other characteristics.

- Travel Time to Work: This factor may affect the amount of time available for college.

- Marital Status: Whether head of household, parent, married or single, and size of family may affect continued enrollment.

- Ethnicity: Ethnic identity may also affect school and college attendance apart from income, prior schooling, and other variables.

- Other Variables: Such items as ability to speak English, residence five years ago, number of children ever born, and sex may also have implications for planners of adult and continuing education programs. In fact, the census probably provides more (but not necessarily more important) information useful for planning adult and continuing education than for any other group identified thus far. Appropriately designed research based on

these data could reveal much not yet known about the continuing education population as well as adults who are not attending school or college.

STATE GOALS OF AFFIRMATIVE ACTION AND ACCESS

Two of the principal goals of California State policy in relation to postsecondary education for the past 20 years have been affirmative action and access to college. Given the 1980 Census finding that over a quarter of all Californians are ethnic minorities and that nearly 10 percent are also at the poverty level in income, these two goals should remain of high priority in the coming decade and beyond.

Affirmative Action

The purpose of affirmative action has been to increase the proportion of ethnic minorities and women in postsecondary education. The State has been partially successful in this effort among Blacks and women at the undergraduate level but less so with Hispanics. Few data have been available for estimating its success among the Southeast Asian populations recently entering the State. By using the undercount statistical adjustment of the census, the 1980 Census can give a fairly accurate count of each ethnic group by age, sex, English-speaking ability, years of schooling, current enrollment in school or college, occupation, level of income, type of housing, and location in the state. A great deal of computer programming and analyses would be required to determine the relationships between these factors and college-going, retention, or completion rates of Hispanics and new Asian groups, but a special study of them similar to those that the Bureau of the Census has done for the nation as a whole on Blacks and on people of Spanish origin (Bureau of the Census, June 1978 and May 1981) would assist schools, colleges, and universities in the localities where most of these groups have migrated.

To measure the success of affirmative action in postsecondary education at giving minorities and women an equal opportunity to enter all occupations and professions, data from the 1970 and 1980 Censuses can be used to compare categories of people in terms of their educational attainment and occupations. In addition, part of the success of affirmative action in permitting upward mobility may be measured by income and type of housing of various groups (taking into account differing median ages of ethnic groups). Census information on housing is extensive and provides not only the

number of bedrooms and baths per family unit but also the year it was built, the presence and type of air conditioning, the type of heating equipment, water supply, sewage disposal, telephone, and the estimated value of the property. Comparing 1970 and 1980 data on these items would give some evidence of upward mobility or lack of it.

Access

Equal access to postsecondary education commonly means the opportunity to enter a particular postsecondary institution or program regardless of geographic location or financial condition. California has largely overcome geographic barriers to access through its network of public and private colleges and universities and their many branch centers and outreach programs. It has also devoted substantial effort at meeting the financial needs of low-income students who would be unable to enroll because of economic reasons. To assess the success of this latter effort, data can be analyzed from the 1980 Census on individual income, family income, number of children in the family and in the residence, the value of the home, the number of years of schooling of each person, the number of persons attending college, their age, sex, marital status, and ethnic origin, and whether or not the family or person falls below the poverty level. When incorporated in a well-designed research project, these data could reveal much about the need for financial aid by various groups in order for State policy to assure equal access to postsecondary education for the needy.

FOUR

OTHER DATA SOURCES FOR POSTSECONDARY PLANNING

So far this report has focused almost exclusively on the 1980 Census. This section, however, points to additional sources of demographic data useful for college and university planning. It first notes information available from the Bureau of the Census, then data from other selected government agencies, followed by work of national and regional higher education associations and agencies, and finally miscellaneous sources of information such as magazines and newspapers. Although its list is not exhaustive, it can be used to lead to still further resources of possible help.

BUREAU OF THE CENSUS

Besides the decennial census, the Bureau of the Census conducts many more frequent data-gathering activities, some which are even more useful for postsecondary planning than the ten-year census and its products.

Current Population Reports

By far the most important and most used of the Bureau's studies for higher education purposes are its seven series of Current Population Reports:

- P-20 Population Characteristics
- P-23 Special Studies
- P-25 Population Estimates and Projections
- P-26 Federal-State Cooperative Program for Population Estimates
- P-27 Farm Population
- P-28 Special Censuses
- P-60 Consumer Income

Each of these series contain publications on varied subjects of interest to many different audiences but periodic reports of special interest to educators. For example, each fall the P-20 series on Population Characteristics include a report on "School Enrollment--Social and Economic Characteristics of Students" with data from the annual October Current Population Survey related to schooling enrollment from early childhood through college and university.

Planning for postsecondary education must take into account other social factors related to higher education than simply data on enrollments and student characteristics, and thus Table 8 illustrates the range of subjects covered by Current Population Reports (except for the Special Censuses Series, P-28) since the 1940s. It consists of the Table of Contents to Report No. 109 in the Special Studies Series, P-23, "Subject Index to Current Population Reports: December 1980" (available for $3.25 from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402). Space does not allow listing here all the reports it covers that are pertinent for higher education, but Tables 9 and 10 reproduce Sections 3 and 18 of the Subject Index, dealing with educational attainment and school enrollment. Because so few data have been available to college and university planners on minority groups, the Current Population Reports on Blacks and Spanish origin populations listed in Sections 1 and 19 of the Subject Index and illustrated in the Bureau of the Census references to this present report will also be of particular interest to them.

Many of the Current Population Reports stem from the Bureau's annual Current Population Survey of a sample of about 60,000 persons. This survey has achieved a reputation for accuracy surpassed only by the decennial census, but its sample is selected from decennial census data and with each passing year after the census, as those data become older, its accuracy also suffers. It is partly from this reason that the error in projecting the increase in the 1980 population was so great. The Bureau may use new or revised techniques during the 1980s to overcome the deficiencies in the sample revealed by the 1980 Census, but as noted earlier, projections and estimates in Current Population Reports for the latter years of the 1980s may be less accurate than those in current years. One other reservation about the data in the Current Population Reports deserves mention: These data are national in character, and on most subjects, including students and their characteristics, they are not broken down by state. California data thus may differ considerably from these national figures.

Social Indicators

The Bureau of the Census also publishes Social Indicators, the third and most recent edition of which appeared in late 1981. Social Indicators contains much of the important social data found in the Current Population Reports. For instance, the 585-page Social Indicators III contains a section on Education and Training covering public perceptions, resource commitments, enrollment and attainment, performance and achievement, adult education and training, and international comparisons, each presented through a series of graphs and charts revealing trends and supporting data.

TABLE 8

TOPICS COVERED IN CURRENT POPULATION REPORTS AS LISTED IN THE TABLE OF CONTENTS TO ITS DECEMBER 1980 SUBJECT INDEX

Section 1.	Black Population	1
Section 2.	Children and Youth	2
Section 3.	Educational Attainment	3
Section 4.	Elderly	5
Section 5.	Farm Population	6
Section 6.	Fertility	8
Section 7.	Geographic Areas	10
	United States	10
	Regions/Divisions/States	10
	Standard Metropolitan Statistical Areas	11
	Outlying Areas	12
	Counties	12
	Places	15
Section 8.	Geographic Areas, by Age, Sex, and Race	18
	United States	18
	Regions/Divisions/States	18
	Counties	19
Section 9.	Households and Families	20
Section 10.	Income	25
	Household Income	25
	Families /Persons	26
Section 11.	Marital Status and Living Arrangements	30
	Marital History	32
Section 12.	Methods, Concepts, and Specialized Data	32
Section 13.	Metropolitan and Nonmetropolitan Residence	34
Section 14.	Mobility and Travel to Work	35
Section 15.	Poverty Data	39
Section 16.	Profiles	40
Section 17.	Projections	42
	United States	42
	Regions/Divisions/States	43
	Standard Metropolitan Statistical Areas	43
Section 18.	School Enrollment	44
Section 19.	Spanish and Ethnic Origin	47
Section 20.	Voting and Registration	48

Source: Bureau of the Census, "Subject Index to Current Population Reports: December 1980," 1981, page iv.

TABLE 9

CURRENT POPULATION REPORTS SINCE 1971 CONCERNING EDUCATIONAL ATTAINMENT

Series P-20	Year	Area/Level	Title
No. 229	1971	US; Reg; m/nm; f/nf	Educational Attainment: March 1971
No. 243	1972	US; Reg; m/nm; f/nf	Educational Attainment: March 1972
No. 274	1973/74	US; Reg; m/nm; f/nf	Educational Attainment in the United States: March 1973 and 1974
No. 295	1975	US; Reg; m/nm; f/nf	Educational Attainment in the United States: March 1975
No. 314	1976/77	US; Reg; m/nm; St*; SMSA*	Educational Attainment in the United States: March 1977 and 1976
No. 334	1976	US; Reg; Div; St	Demographic, Social, and Economic Profile of States: Spring 1976 (SME)
No. 356	1978/79	US; Reg; St*; SMSA*; m/nm	Educational Attainment in the United States: March 1979 and 1978

Series P-60	Year	Area/Level	Title
No. 92	1956-72	US	Annual Mean Income, Lifetime Income and Educational Attainment of Men in the United States, for Selected Years, 1956 to 1972

Source: Ibid., pp. 3-5.

TABLE 10

CURRENT POPULATION REPORTS SINCE 1973 CONCERNING SCHOOL ENROLLMENT

Series P-20	Year	Area/Level	Title
No. 268	1973	US; Reg; m/nm	Nursery School and Kindergarten Enrollment: October 1973
No. 270	1973	US; Reg; m/nm	College Plans of High School Seniors: October 1973
No. 272	1973	US; Reg; m/nm	Social and Economic Characteristics of Students: October 1973
No. 281	1973	US	Income and Expenses of Students Enrolled in Postsecondary Schools: October 1973
No. 284	1974	US; Reg; m/nm	College Plans of High School Seniors: October 1974
No. 286	1974	US; Reg; m/nm	School Enrollment - Social and Economic Characteristics of Students: October 1974
No. 289	1974	US; Reg	Major Field of Study of College Students: October 1974
No. 299	1975	US; Reg; m/nm	College Plans of High School Seniors: October 1975
No. 303	1975	US; Reg; m/nm	School Enrollment - Social and Economic Characteristics of Students: October 1975
No. 318	1967-76	US	Nursery School and Kindergarten Enrollment of Children and Labor Force Status of Their Mothers: October 1967 to October 1976
No. 319	1976	US; Reg; m/nm	School Enrollment - Social and Economic Characteristics of Students: October 1976
No. 333	1977	US Reg; m/nm	School Enrollment - Social and Economic Characteristics of Students: October 1977
No. 337	1976	US; Reg; St; m/nm	Relative Progress of Children in School: 1976 (SIE)
No. 342	1978	US; m/nm	Travel to School: October 1978
No. 343	1976	US	Vocational School Experience: October 1976
No. 346	1978	US; Reg; m/nm	School Enrollment - Social and Economic Characteristics of Students: October 1978
No. 348	1976	US	Living Arrangements of College Students: 1976
No. 351	1978	US; Reg	Major Field of Study of College Students: October 1973

Source: Ibid., pp. 45-46.

The major weakness of Social Indicators is one common to most government reports--delay. Its data are at least two years old before publication. Thus most of the data in Social Indicators III ends with the years 1978 or 1979. Nonetheless, it provides a basis for state and institutional planners to improve their sense of trends and a rationale for keeping state data current through local sources.

Announcements, Guides, and Regional Centers

Three Bureau publications can help planners determine which of its many other publications they wish to order and when they will be released: (1) the free Data User News, a monthly report on Bureau publications; (2) the Monthly Product Announcement, which lists a release schedule for all Bureau products; and (3) the 1980 Census User's Guide, which consists of a number of parts being issued during 1982 and 1983, covering census data subjects, geographic areas, user tapes, maps, and other products, and giving information on services available to users. All three aids may be ordered from the Government Printing Office.

The Bureau sponsors regional centers in each state whose highly trained staff members offer information about census products and their use. California's five such centers, which are of invaluable service to serious users of census products throughout the State, are listed in Table 11.

PUBLIC HEALTH SERVICE

The U.S. Public Health Service issues a monthly report on the nation's vital statistics as well as a final consolidated Vital Statistics report each year. The monthly reports are considered preliminary and thus not necessarily entirely accurate; nonetheless, they provide immediate information about numbers of births and deaths, marriages and divorces, and immigration that can be of value to educational planners. Because they present data state by state, usually for the past two or three years as well as the current one, trend changes within states can be quickly detected and responses planned. While especially valuable for planners at the elementary and secondary school levels, the monthly reports can be useful for long-range planning in higher education as well. Thus the first indications in the mid-1960s of the looming decline in the number of college-age youth were drawn by Allan Cartter and other scholars from them. Educational planners in California can work through the State Department of Health Services to obtain vital statistics data on a county-by-county basis, which is particularly valuable in planning for the several regions of the state.

TABLE 11

CALIFORNIA STATE CENSUS DATA CENTERS

The State Census Data Center network can provide tapes, standard reports, customized tabulations, matching of client mailing lists to census geography, computer graphics, MMS Census Block Maps, and microfiche reports on a cost reimbursable basis. These products can be ordered from any of the Census Data Centers listed here.

AGENCY	AREAS COVERED
Wm. Schooling, Director State Census Data Center Dept. of Finance 1025 "P" Street Sacramento, CA 95814 (916) 322-4651	All state agencies, Monterey, San Benito, Santa Cruz
Don Farrimond, Director Sacramento Area Council of Governments 800 "H" Street, Suite 300 Sacramento, CA 95814 (916) 441-5930	El Dorado, Nevada, Placer, Sacramento, Sierra, Sutter, Yolo, Yuba and 21 other Northern counties not listed for any other Center
Jim Forand, Director Association of Bay Area Governments Hotel Claremont Berkeley, CA 94705	Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma
Tim Douglas, Manager Southern California Association of Governments 600 S. Commonwealth Ave. Los Angeles, CA 90005 (213) 739-6614	Imperial, Kern, Los Angeles, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara, Ventura
Karen Lamphere, Director San Diego Association of Governments Security Pacific Plaza 1200 Third Ave., Suite 524 San Diego, CA 92101 (714) 236-5300	San Diego
Ilona Kinowski, Coordinator State Data Program/ Survey Research Center 2538 Channing Way Berkeley, CA 94720 (415) 642-6571	Fresno, Kings, Madera, Merced, San Joaquin Stanislaus, Tulare Universities and Colleges

Source: California State Data Center, 1981.

DEPARTMENT OF LABOR

Among reports of the U.S. Department of Labor that may be of use to planners at both the institutional and state levels, the Occupational Outlook Handbook is probably the best known. It has been a standby of counselors for high school and college students for many years. The 1982-1983 edition, which may be ordered from the Government Printing Office in Washington as Bureau of Labor Statistics Bulletin 2200, lists hundreds of occupations by category and describes recent employment trends for each suboccupation.

The Department's projections of the employment and occupational outlook have been about as accurate as obtainable in the country, but for long-range planning they should be used with caution. Most social projections are usually wrong, and those regarding work changes and opportunities are especially vulnerable to error. Each state has its own government department that deals with labor and employment from which state data may be obtained. Although these data may not be better or even much different than national data, they are likely to be more current and more relevant to institutional and state planners. In California, the Department of Employment Development provides ready, reliable advice to such planners in dealing with state occupational and employment data.

NATIONAL CENTER FOR EDUCATION STATISTICS

The National Center for Education Statistics (NCES), a division of the Department of Education, has annually published since 1977 The Condition of Education, composed of charts, graphs, and tabular data drawn from a variety of sources, including the Bureau of the Census's Current Population Reports and, for higher education, from its own Higher Education General Information Survey (HEGIS) of colleges and universities. The appendix to The Condition of Education contains annotations of sources from which its data are drawn, only some of which are listed in this present paper.

Most of The Condition of Education focuses on elementary and secondary school data, but a goodly amount relates to higher education matters. Unfortunately, the report has failed to become a principal source of data for higher education planning because it presents different sets of data each year, very often directed to the interests of the current federal administration, and thus does not carry trends forward. The data selected for inclusion may not be especially pertinent for state planners in contrast to federal offi-

cials, and very little of it is reported on a state-by-state basis. (State-level "condition of education" reports are now produced annually by the higher education coordinating agencies of several states and probably should be published in every state for use in planning by colleges and universities.) In addition, the quality of HEGIS data continues to be suspect, even after many efforts on the part of the Center to improve its accuracy. Because institutions find national HEGIS data little help to them when it is released two or more years late, some seem careless in reporting their data to the Center.

From time to time the Center also publishes special reports on particular conditions in education, such as Enrollments and Programs in Noncollegiate Postsecondary Schools, 1978, and Residence and Migration of College Students, Fall 1979. It also makes its own projections on enrollment, finance, and faculty. The overall quality of its work has improved over the years, but, like the 1980 Census, its lateness in releasing this work limits its usefulness.

HIGHER EDUCATION ASSOCIATIONS AND REGIONAL AGENCIES

American Council on Education

The American Council on Education (ACE) sponsors the annual American college freshman survey of the Cooperative Institutional Research Program which is administered through the Laboratory for Research on Higher Education of the Graduate School of Education, University of California, Los Angeles. This survey provides a great deal of information about the age, outlook, values, attitudes, high school activities, occupational expectations, and other characteristics of college freshmen. Administered each fall since 1966, its normative data reveals many trends over the past decade and a half. Any college or university may participate in the survey, but data on only about half of the freshmen at participating institutions are reported in the national norms because the norm group excludes all part-time and adult freshmen

The Policy Analysis Service Reports of the Council, such as that on "Changes in Enrollment by 1985" (Henderson, 1977), have also been of value to state planners, although some of their methodologies and conclusions have been quite controversial. Currently the Council is reconsidering the future of its center which produces them.

The most valuable data published by the Council directly is its annual Fact Book For Academic Administrators. The 200 pages of the

1981 edition are filled with charts, graphs, and back-up data without analysis and discussion. The data are drawn from many sources, as are those in The Condition of Education of the National Center for Education Statistics, but they are directed at college and university administrators rather than school personnel and so they are more pertinent to higher education planning than are those in The Condition of Education.

Educational Testing Service

The Educational Testing Service (ETS) annually publishes National College Bound Seniors, which provides information on the intentions of high school seniors as to institutional and program preferences and college preparedness as assessed by the Scholastic Aptitude Test.

Educational Testing Service also publishes many special studies dealing with college and university students, most of them directly related to its own function of testing. However, it has a very large research arm that conducts studies for federal and state agencies and higher education associations and institutions. Among those of particular interest to planners is Centra, 1978. .

State Higher Education Executive Officers (SHEEO)

The SHEEO/NCES Communications Network, organized in 1976, has begun to exchange state information and to publish reports on state surveys and their findings. The most recent, "The Effect on Higher Education of State Actions in Response to Unanticipated Revenue Shortfalls," is informative for all state planners rather than only those in higher education. The Communications Network has been slow in starting, but if its funding continues it should become a valuable tool for planners who want to know what other states are doing in relation to a problem or issue.

Partly as a result of action by the Communications Network, the National Center for Education Statistics has recently released a State Higher Education Factbook that is the first of its kind. If its data are more up-to-date than those in the Current Population Reports, the 1980 Census, or HEGIS, it will be a great boon for planners. Comparative data do not always aid in problem solving, but they often afford fresh perspectives on mutual problems.

SHEEO has also entered into an agreement with the Education Commission of the States and the National Center for Higher Education Management Systems to produce the State Postsecondary Education Profiles Handbook. The first edition, published in 1981, contains

information on a variety of subjects pertinent to planning, but it relies heavily, if not exclusively, on Bureau of the Census and National Center for Education Statistics data from 1979 and before. Nevertheless, this publication is valuable in its comparative data across states.

Education Commission of the States

Besides the State Postsecondary Education Profiles Handbook, the Education Commission of the States itself produces a handbook, High School Graduates: Projections for the Fifty States (Western Interstate Commission for Higher Education, 1979), which projects college enrollments for each of the 50 states. If one agrees with the assumptions built into its projections, this book may be of value; but if one disagrees with these assumptions, it will merely give a contrasting projection to that developed by state planners themselves. Because such assumptions affect projections so greatly, and because of the limited number of variables considered in its calculations, its estimates for California are unlikely to replace those of California's Department of Finance as the working base for this State's planners.

For other Education Commission of the States publications of interest to postsecondary planners, see the Hyde, September 1980, and October 1981, references in the bibliography.

PERIODICALS

Certain magazines and newspapers provide good current information applicable to state and institutional planning.

The best of all these sources is The Chronicle of Higher Education. The "Fact-File" included in almost every issue of this weekly newspaper often reports data prior to its publication in research monographs or government documents, much of it bearing directly on state planning issues. Although The Chronicle does not update all of its Fact-File data each year, and thus makes no effort at building trend lines on all topics, the current nature of its data is sufficient to recommend it as a valuable source, particularly if readers are familiar with the reliability of the persons or organizations furnishing the data.

U.S. News and World Report often also provides data from the Bureau of the Census and other government agencies prior to their release of the publication (see samples in the bibliography), and it carries

occasional stories on the relationship of business and industry to education. It is worth scanning each week for pertinent data for higher education.

The monthly journal, American Demographics, along with its accompanying four-page supplement, The Numbers News, is an excellent source of current demographic data. It contains many analytical articles on census data and relates the problems and frustrations of dealing with them in particular situations. The Numbers News always devotes at least one full page to data on some census subject and gives the technical problems associated with it. The editors of American Demographics are themselves demographers, and their magazine reflects a professional perspective for scholarly as well as lay readers, comparable in its own field to Psychology Today in psychology.

The New York Times and the Wall Street Journal often print early release material from the government and business agencies that can give planners from two months' to a year's lead on data before their published reports can be obtained.

BUSINESS FIRMS

Finally, a number of companies deal in demographic data and, under contract, conduct special computer runs of census data along with economic data drawn from other sources, or even conduct complete studies for clients. A description of some of these companies, their services, and their prices appears in the January 1982 issue of American Demographics. Many of them allow direct access from one's own computer to their data bases, which they claim are updated on a continuous basis.

FIVE

TECHNICAL CAPABILITY FOR PLANNING IN THE REMAINDER OF THE 1980s

Despite its limitations, the 1980 Census is the most valuable and useful data base now available to state higher education planners on population characteristics of interest to them, including age, economic status, marital status, ethnic background, educational attainment, educational enrollment, and many other attributes of Americans as of April 1980. For every subsequent year since 1980, however, the usefulness and accuracy of these data wane, and by no later than 1985 they will be far less helpful to state planners than the Current Population Reports of the Bureau of the Census.

Currently, census data are the best that can be obtained for California to use in laying its own data base for postsecondary education planning. But its own data base is what California should seek. State planning agencies for higher education such as the California Postsecondary Education Commission gather more data for operational decisions regarding colleges and universities than do all federal and other state agencies combined. Their data, together with those from state agencies dealing with finance, employment, health, and elementary and secondary education, can contribute to updating, often on a month-to-month basis, the planning agency's data base and trend lines for long-range planning.

The issues cited in Part Three above regarding affirmative action and access for underrepresented minority and low-income students, women, students with disabilities, and part-time students have been given high priority by the State of California. In addressing them, the Postsecondary Commission can bring together census data with data from the State Departments of Education, Finance, Employment Development, and Health Services as well as from other State agencies and institutions of higher education for planning and evaluation purposes. Each of the many variables related to these issues can be studied and compared with each other on the basis of these data in order to detect, trace, and project trends in framing future State policy.

Trend data from annual or biennial surveys provide more substance to planning than one-time or infrequently gathered data. As the largest state in the nation, California cannot afford to base State policy through the latter part of the 1980s on population estimates as inaccurate as those furnished by the Bureau of the Census at the end of the 1970s. Twenty percent errors in such estimates, especially when they bear most heavily on particular groups, such as

school-age youth and ethnic minorities, probably have cost the State hundreds of millions of dollars in lost federal funds. If the federal government does not improve the quality of its inter-census Current Population Survey sampling, its resulting population estimates and projections, and other surveys such as HEGIS, California agencies must do so for the sake not only of the State's students and its educational systems but for local government, business, industry, and its citizens in general. State and local agencies as well as private groups that need accurate demographic data, if brought together in appropriate combinations, could gain substantially from paying the costs of special surveys conducted by the Bureau, the Population Research Unit of the State Department of Finance, or private demographic firms.

The California Postsecondary Education Commission is an ideal agency to explore what needs can be met and what agencies would gain sufficiently to help finance such surveys, and, if necessary, to contract for certain of them. It has great need for accurate trend data, as do the higher education institutions with which it plans. It should thus be the responsible agent for coordinating and then analyzing and publishing the results of statewide surveys involving postsecondary education. One or perhaps two persons on its staff should alert other staff, Commissioners, the institutions, and other relevant State agencies to new data developments and trend changes. They should be familiar with all major sources of demographic data within the State and conversant with the staffs that analyze and use these data in other agencies. With strong analytic skill, insight, and foresight, a data base for Commission planning such as proposed here would become a powerful tool for aiding policy formulation. With it, and with such a data base, they could become the Commission's most effective employees.

In sum, the scope, reliability, and validity of a data base and the expertise of its staff determine its ultimate usefulness. Unless the base is kept reasonably current, the same mistakes in assumptions about the future will be made in the remainder of the 1980s as in the past two decades. Societal change occurs so quickly, unexpectedly, and forcefully that anticipation is increasingly difficult; but it is more and more essential if we are to plan and create appropriate, effective, and efficient programs to meet the educational needs of the State and future generations of youth and adults.

APPENDIX A

The 1980 Census Questionnaire

Reprinted from the April 1980
issue of American Demographics

The 1980 Census Questionnaire

The following article is reprinted by the U.S. Bureau of the Census, courtesy of American Demographics magazine, from its April 1979 issue. American Demographics, Inc. assumes all responsibility for its contents.

The 1980 Census questionnaire is already at the printer's. We have obtained a copy, which is reprinted here with our annotations.

This is the version of the questionnaire given to a sample of the population: The first seven population questions also are asked of every American, and housing questions H1.-H12. are asked of every household. The rest of the questions are asked on a one-in-six random sample basis, except in localities of less than 5,000 population, where a one-in-two sample is taken to gather data statistically adequate for use as the basis for federal revenue sharing program allocations.

The first question appears on the cover of both the short form (the 100 percent questionnaire) and long form (the sample questionnaire). The question is: "What is the name of each person who was living here on Tuesday, April 1, 1980, or who was staying or visiting here and had no other home?" Information from Question 1 is used by the Census Bureau for follow-up if other questions are not answered. Data from this question are not published.

The questionnaire begins with a pledge of confidentiality, Spanish-language instructions for those who wish to order a Spanish questionnaire, and the following message from the director of the Bureau of the Census:

"We must, from time-to-time, take stock of ourselves as a people if our Nation is to meet successfully the many national and local challenges we face. This is the purpose of the 1980 census.

"The essential need for a population census was recognized almost 200 years ago when our Constitution was written. As provided by article I, the first census was conducted in 1790 and one has been taken every 10 years since then.

"The law under which the census is taken protects the confidentiality of your answers. For the next 72 years — or until April 1, 2052 — only sworn census workers have access to the individual records, and no one else may see them.

"Your answers, when combined with the answers from other people, will provide the statistical figures needed by public and private groups, schools, business and industry, and Federal, State, and local governments across the country. These figures will help all sectors of American society understand how our population and housing are changing. In this way, we can deal more effectively with today's problems and work toward a better future for all of us.

"The census is a vitally important national activity. Please do your part by filling out this census form accurately and completely. If you mail it back promptly in the enclosed postage-paid envelope, it will save the expense and inconvenience of a census taker having to visit you.

"Thank you for your cooperation."

Note: The questionnaire was provided by the Census Bureau, with editing and annotations done by the American Demographics staff.

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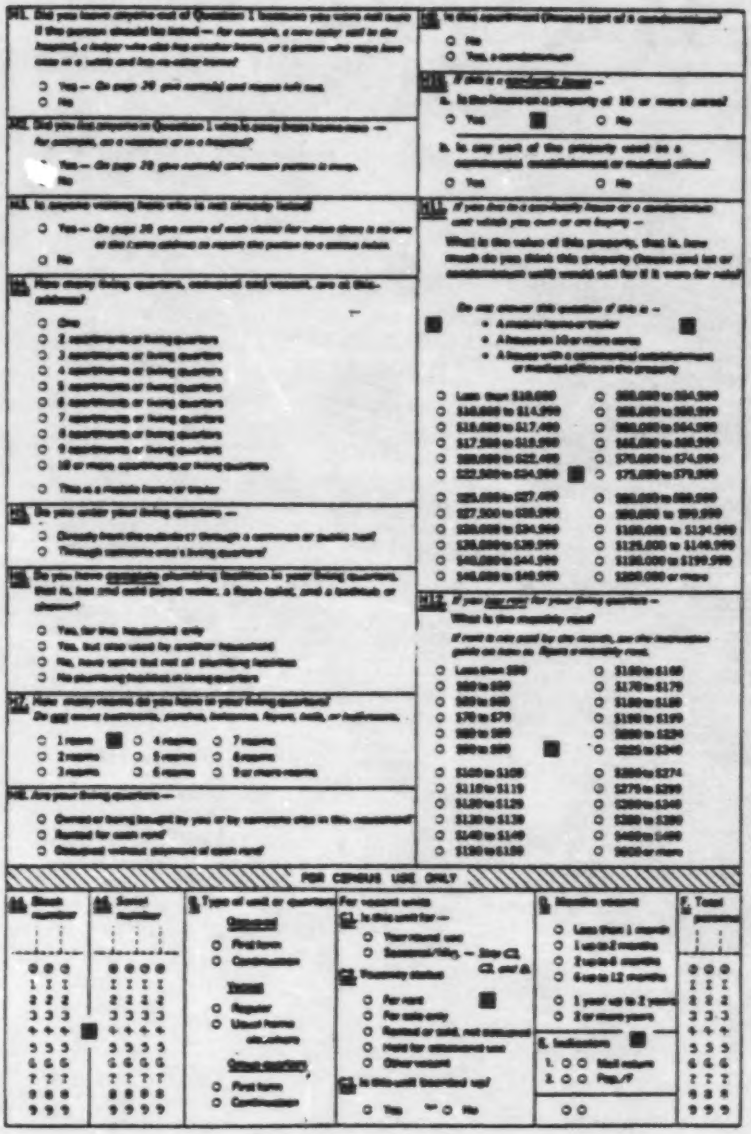

H1-H3. the housing part of both the 100 percent and sample questionnaires starts with these three questions to make sure that everyone in the household was counted.

H4. same as in 1970. This question is asked so that owner-occupied can be sure that all units at an address are enumerated. Question H13 provides superior data on the number of dwelling units in the structure. Like the first three housing questions, H4 is intended to check coverage.

H5. has the objective of making certain the respondent occupies a house like dwelling unit, not just a few rooms in someone else's house.

H6. one of the few questions left from a series of questions in the 1970 Census which attempted to measure housing quality.

H7. same as in 1970.

H8. same as in 1970.

H9. for the first time poses a separate question on condominiums. The term "cooperative" also appeared on the test questionnaires but was unanderstood by many respondents.

H10. separates farmhouses, cottages, and purely commercial structures from single family dwelling units. Value is not tabulated for these types of units.

H11. asks values. There are 24 categories instead of the 11 in 1970, when the highest value was only $50,000 or more.

H12. also shows the impact of inflation. The highest interval in 1970 was $300 or more. It is now $500 or more, and 24 categories appear instead of the former 14.

H12 asks the housing question asked of all Americans. The Census Bureau estimates it takes 15 minutes to answer the 19 population and housing questions on the short questionnaire, while the remaining questions add another 30 minutes.

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2. ... provides information on type of household (husband/wife, other type of family, or single person household) and the number of persons in the household. Because of changes in society since 1970, the concept of household "head" has been replaced with that of a reference person in whose name the dwelling unit is owned or rented. This person is identified in column one. This key change means data will not be exactly comparable to "male-headed" or "female-headed" household data from the 1970 Census, but it will be easy to identify families and other types of households. In many tabulations characteristics will be shown for both husband and wife whereas they were shown previously only for the head of family households.

The questionnaire has space for up to seven household members to provide answers. We show only columns 1. The other columns are identical except for question 2, which asks relationship. In question 2, columns 2 through 7 have the following language instead of the "Start in this column" language: "If relative of person in column 1: Husband/wife; Son/daughter; Brother/sister; Father/mother; Other relative (specify). If not related to person in column 1: Roomer, boarder; Partner, roommate; Paid employee; Other nonrelative (specify)."

Two of the categories are new: "Partner, roommate" and "Paid employee." The first was added to obtain statistics on the growing number of people who live together without being married.

3. ... same as in 1970.

4. ... expands the possible answers about race from nine in 1970 to 15. As a result we can expect a few Samoans to turn up in places like Kansas City, just because that alternative is listed. The expansion is the result of growing ethnic awareness, but notice that the word "race" does not appear.

5. ... same as in 1970.

6. ... same as in 1970.

7. ... for the first time asks all Americans a single question about Spanish origin. These data will not be comparable with previous censuses. In 1970, this question was asked of a maximum of 15 percent of the population, and the data were tabulated differently for different regions of the country. This question ends the population questions asked of all Americans. The next three questions appear on the long form questionnaire only.

8. ... similar to 1970, but what was previously called "parochial" schools is now called "church related."

9. ... similar to 1970, but the highest college level asked for then was six or more years.

10. ... same as in 1970.

Note: Because of our format we have reduced the size of the questionnaire by about 15 percent and omitted certain instructions to respondents and Census Bureau use boxes. The census questionnaire also will have blue shading, not gray.

Here are the QUESTIONS ↓	These are the columns for ANSWERS → *Please fill one column for each person listed in Question 1.*	PERSON 1 or column 1	PE
2. How is this person related to the person in column 1? *Fill one circle.* *If "Other relative" of person in column 1, give exact relationship, such as mother-in-law, niece, grandson, etc.*		*START in this column with the household member (or one of the members) in whose name the home is owned or rented. If there is no such person, start in this column with any adult household member.*	If relative of the ○ Husband ○ Son/da ○ Brother If not related to ○ Roomer ○ Partner ○ Paid em
3. Sex *Fill one circle.*		○ Male ○ Female	○ Male
4. Is this person *Fill one circle.*		○ White ○ Black or Negro ○ Japanese ○ Chinese ○ Filipino ○ Korean ○ Vietnamese ○ Indian (Amer.) Print tribe — ○ Asian Indian ○ Hawaiian ○ Guamanian ○ Samoan ○ Eskimo ○ Aleut ○ Other — Specify	○ White ○ Black o ○ Japane ○ Chinese ○ Filipino ○ Korean ○ Vietnam ○ Indian(Print tribe —
5. Age, and month and year of birth a. *Print age at last birthday.* b. *Print month and fill one circle.* c. *Print year in the spaces, and fill one circle below each number.*	a. Age at last birthday — b. Month of birth: ○ Jan.—Mar. ○ Apr.—June ○ July—Sept. ○ Oct.—Dec. — c. Year of birth: 1 ● 8 ○ 9 ○ 0 ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9 ○		a. Age at last birthday — b. Month of birth: ○ Jan.—M ○ Apr.— ○ July— ○ Oct.—
6. Marital status *Fill one circle.*		○ Now married ○ Widowed ○ Divorced ○ Separated ○ Never married	○ Now m ○ Widow ○ Divorc
7. Is this person of Spanish/Hispanic origin or descent? *Fill one circle.*		○ No (not Spanish/Hispanic) ○ Yes, Mexican, Mexican-Amer., Chicano ○ Yes, Puerto Rican ○ Yes, Cuban ○ Yes, other Spanish/Hispanic	○ No (no ○ Yes, M ○ Yes, P ○ Yes, C ○ Yes, o
8. Since February 1, 1980, has this person attended regular school or college at any time? *Fill one circle. Count nursery school, kindergarten, elementary school and schooling which leads to a high school diploma or college degree.*		○ No, has not attended since February 1 ○ Yes, public school, public college ○ Yes, private, church-related ○ Yes, private, not church-related	○ No, ha ○ Yes, p ○ Yes, p ○ Yes, p
9. What is the highest grade (or year) of regular school this person has ever attended? *Fill one circle.* *If now attending school, mark grade person is in. If high school was finished by equivalency test (GED), mark "12."*	Highest grade attended: ○ Nursery school ○ Kindergarten — Elementary through high school (grade or year): 1 2 3 4 5 6 7 8 9 10 11 12 — College (academic year): 1 2 3 4 5 6 7 8 or more — ○ Never attended school — *Skip question 10*		Highest grade ○ Nurser Elementary th 1 2 3 4 ○ ○ ○ ○ College (acade 1 2 3 4 ○ ○ ○ ○ ○ Never
10. Did this person finish the highest grade (or year) attended? *Fill one circle.*		○ Now attending this grade (or year) ○ Finished this grade (or year) ○ Did not finish this grade (or year)	○ Now a ○ Finish ○ Did no

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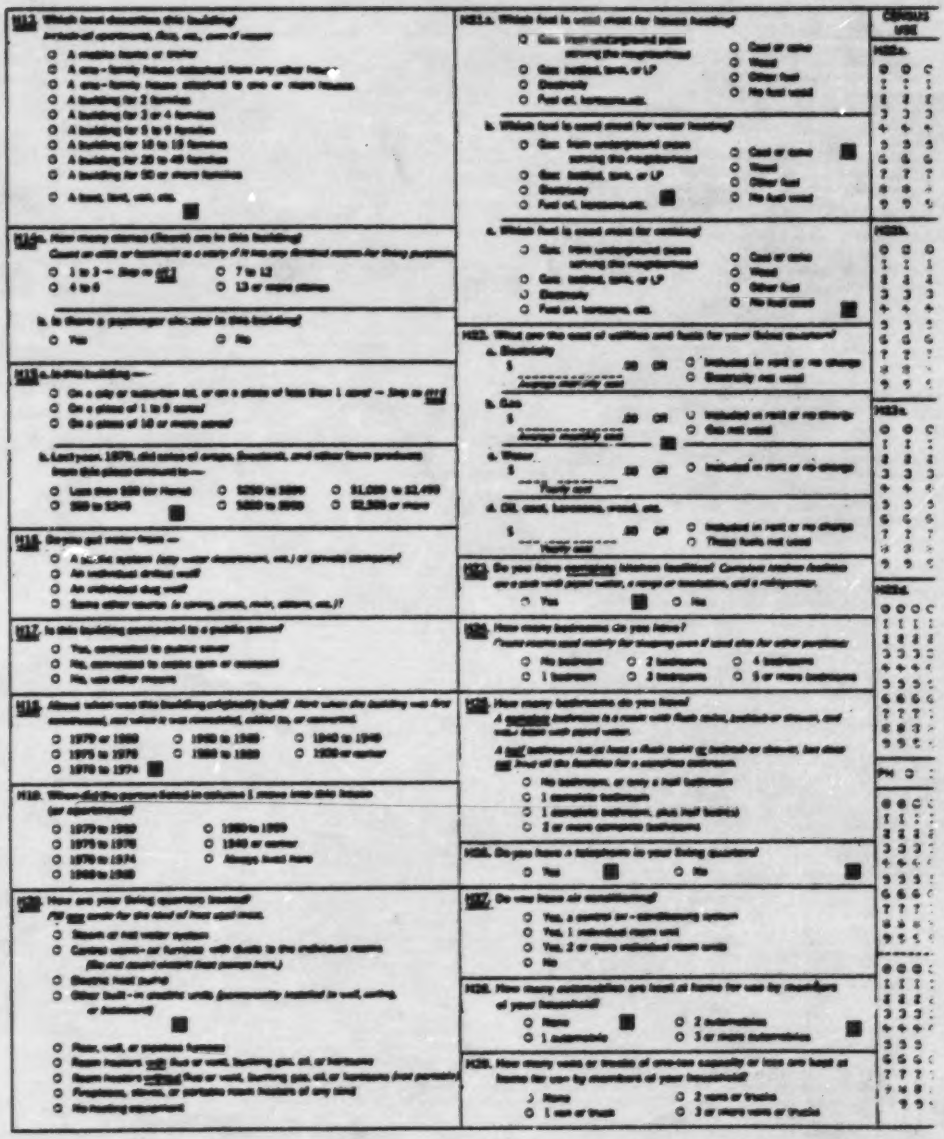

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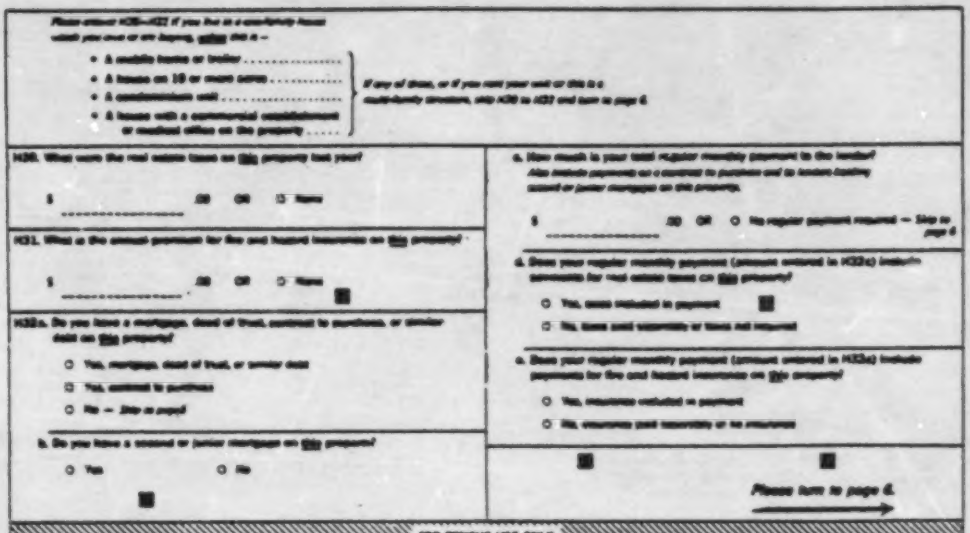
• A mobile home or trailer
• A house on 10 or more acres
• A condominium unit
• A house with a commercial establishment or medical office on the property
H30. What were the real estate taxes on this property last year?
$ .00 OR None
H31. What is the annual payment for fire and hazard insurance on this property?
$ .00 OR None
H32a. Do you have a mortgage, deed of trust, contract to purchase, or similar debt on this property?
Yes, mortgage, deed of trust, or similar debt
Yes, contract to purchase
No — Skip to page 6
b. Do you have a second or junior mortgage on this property?
Yes
No
c. How much is your total regular monthly payment to the lender? Also include payments on a contract to purchase and to lenders holding second or junior mortgages on this property.
$ .00 OR No regular payment required — Skip to page 6
d. Does your regular monthly payment (amount entered in H32c) include payments for real estate taxes on this property?
Yes, taxes included in payment
No, taxes paid separately or taxes not required
e. Does your regular monthly payment (amount entered in H32c) include payments for fire and hazard insurance on this property?
Yes, insurance included in payment
No, insurance paid separately or no insurance
Please turn to page 6.
FOR CENSUS USE ONLY
H30 H31 H32a

H13. beam, vent, and room have been added to the possible answers. Otherwise, it is the same as a question asked in 1970.

H14. same as in 1970.

H15. same as in 1970.

H16. a slight variation from the 1970 question in that the respondent is asked to differentiate a drilled well from a dug well.

H17. same as in 1970.

H18. same as in 1970.

H19. asked in 1970, but of each person in the household, and appeared in the population section.

H20. same as in 1970 except that the choice "electric heat pump" has been added, and an open-ended "solar" choice has been eliminated.

H21. same as in 1970.

H22. asked only of owners in 1970. Now all occupied households are supposed to answer. Census tests show that respondents almost always overstate their utility costs.

H23. asked in 1970, but on the short form.

H24. same as in 1970.

H25. asked in 1970, except the highest category was "3 or more" bathrooms.

H26. on the 100 percent questionnaire in 1970 and asked differently: in those a telephone on which people in your living quarters can be called?" If the answer was yes, the respondent was asked to write down the phone number. The simpler form for 1980 may produce better results.

H27. same as in 1970.

H28. same as in 1970.

H29. a new question reflecting the substantial increase in the number of vans and trucks.

H30-H32. all new. Their purpose is to obtain a measure of total shelter costs for one-family owner-occupied units. The Census Bureau does not plan to tabulate these questions separately, but to combine them with H22 for a single tabulation of "total shelter costs."

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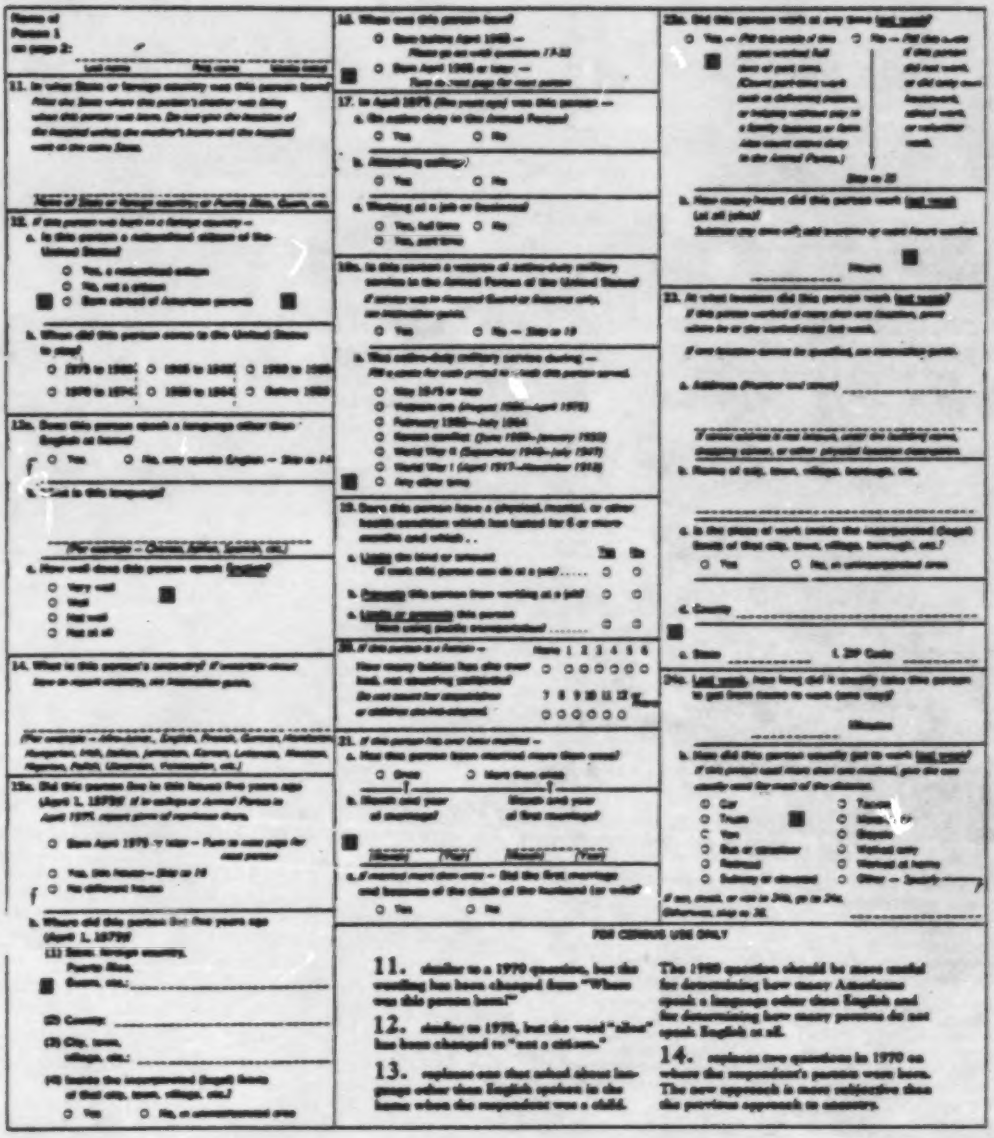

FOR CENSUS USE ONLY

11. similar to a 1970 question, but the wording has been changed from "Where was this person born?"

12. similar to 1970, but the word "alien" has been changed to "not a citizen."

13. replaces one that asked about language other than English spoken in the home when the respondent was a child.

The 1980 question should be more useful for determining how many Americans speak a language other than English and for determining how many persons do not speak English at all.

14. replaces two questions in 1970 on where the respondent's parents were born. The new approach is more subjective than the previous approach is necessary.

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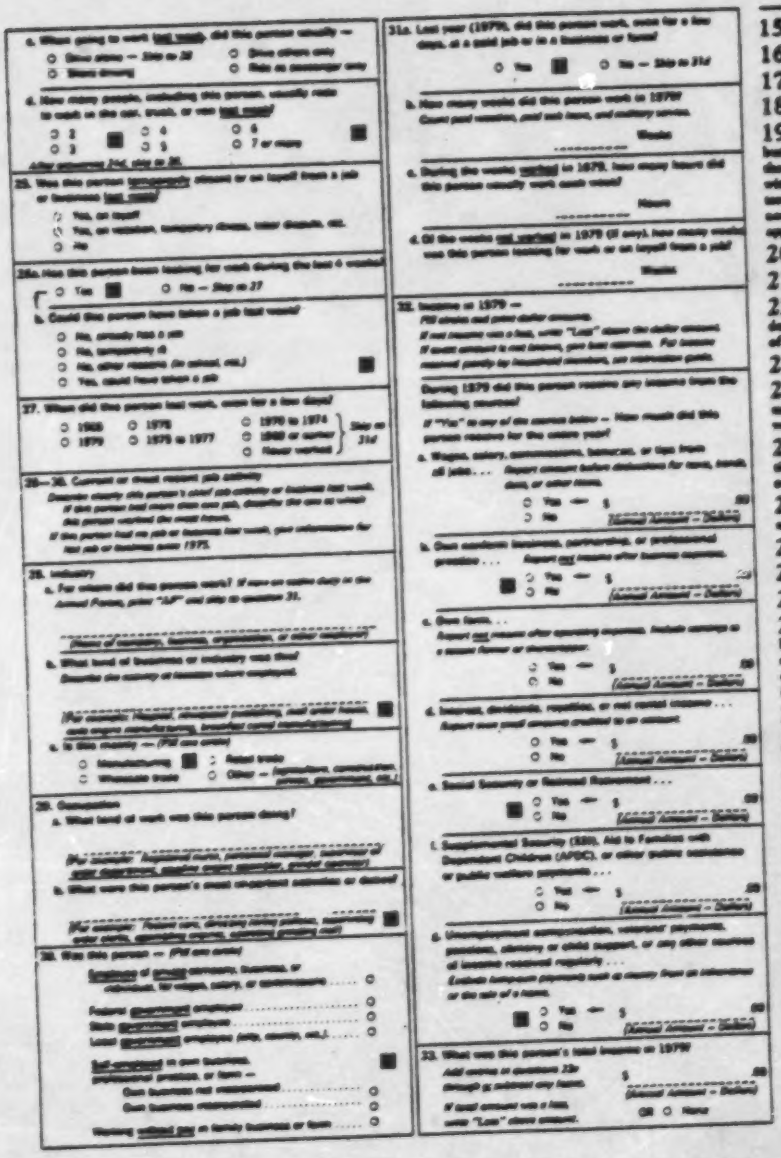

15. same as in 1970.

16. same as in 1970.

17. same as in 1970.

18. same as in 1970.

19. resembles a question asked in 1970, but there it was asked only of persons less than 65 years old and was concerned only with a work disability. The 1980 question asked purely, but as many public agencies used disability data that the question will appear anyway.

20. same as in 1970.

21. same as in 1970.

22. asked in 1970, but in 1980 respondents are also asked to write in the number of hours worked.

23. same as in 1970.

24a. a new question which attempts to measure average time spent getting to work.

24b. same as in 1970 but with the additional categories of truck, van, motorcycle, or bicycle.

24c & d. a new series of questions to measure the extent of carpooling.

25. same as in 1970.

26. same as in 1970.

27. same as in 1970.

28. resembles a question asked in 1970, but the words "... this person" have been substituted for the pronoun "he" in the questions on occupation, industry, and income.

29. same as in 1970.

30. same as in 1970.

31.a & b. same as in 1970.

31.c & d. new questions to measure part-time workers and the extent of unemployment in the previous year.

32. similar to 1970 except that the question has been reworded to "Income" instead of "earnings" and "interest, dividends ..." and "unemployment compensation ..." have been separated.

33. appeared in 1970 in slightly different form as part of the earnings question. This is the last question. The questions about population characteristics are repeated for up to seven persons in the household. If there are more than seven persons in a household on enumerator calls and tabulates responses of the additional persons.

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APPENDIX B

Complete Count Questionnaire Changes, 1970 to 1980

Excerpted from David E. Silver and Jean E. Forester, "The 1980 Census Questionnaires," Statistical Reporter, July 1979.

Complete Count Questionnaire Changes -- 1970 to 1980

The content of the 1980 census questionnaires is best viewed as a continuation of the previous decade's experience rather than a radical departure. Many census items have remained unchanged from 1970; others have been slightly modified to clarify the question wording or remove confusing instructions. In some cases, 1970 questions have been replaced with new questions which approach a subject from a different angle. For example, the question on race no longer mentions color or race in the question but instead provides a set of racial groups. With regard to the relationship question, the "head of household" terminology used in 1970 has been replaced by a format using a householder as a means to reconstruct families without implying the notion of dominance implicit in the designation of a household head. A brief item-by-item list of changes made in the census questions between 1970 and 1980 is presented below. The wordings of the 1980 census questions are provided in parentheses for each item. In this presentation, some items are listed as "No change"; this indication may, however, include some minor changes in wording or question format due to changes in basic questionnaire construction or style of presentation. It should also be noted that the phrase "this person" in the wording of census questions refers to the person for whom data are being provided, not necessarily the person filling the form.

100-percent Population

1. Name. ("What is the name of each person who was living here on Tuesday, April 1, 1980, or who was staying or visiting here and had no other home?"): No change from 1970. The names of persons given in question 1 are listed at the top of the response columns for the 100-percent items and at the beginning of sample pages on the long form.

2. Household relationship. ("How is the person related to the person in column 1?") Revised from 1970 to replace the "Head of household" category with a format using a reference person, i.e. the "Person in column 1."

   The 1970 category "Other relative of head" has been replaced by three categories, "Brother/sister," "Father/mother," and "Other relative." Since the category "Patient or inmate" is marked only by census enumerators, it has been moved to the bottom of the form in a space reserved for "Census use only." New nonrelative categories include "Partner, roommate" and "Paid employee."

3. Sex. ("Sex"): No change from 1970.

4. Race. ("Is this person-"): The specific reference to "color or race" used in the 1970 census question has been replaced with the phrase, "Is this person-," and response is expected to indicate the racial group the person most closely identifies with. Individual categories for Vietnamese, Asian Indian, Guamanian, and Samoan have been added. The use of a

specially printed schedule for Alaska in 1970 --wherein the categories Hawaiian and Korean were replaced by Aleut and Eskimo--has been eliminated by including the latter as categories on the standard questionnaire. As a result, the 1980 questionnaire will have 14 specific categories instead of the 8 in 1970.

5. Age. ("Age, and month and year of birth"/ 5a. "Print age at last birthday."/ 5b. "Print month and fill one circle."/ 5c. "Print year in the spaces, and fill one circle below each number."): No change in age and month of birth. The year-of-birth question format was revised to replace the 1970 response categories with self-coding FOSDIC circles for the last three digits of the year of birth. The first digit is prefilled with a "1."

6. Marital Status. ("Marital status"): No change from 1970. Response categories include: "Now married," "Widowed," "Divorced," "Separated," and "Never married."

7. Spanish/Hispanic origin or descent. ("Is this person of Spanish/Hispanic origin or descent?"): A 5-percent sample question in 1970. Response categories for 1980 include: "No, (not Spanish/Hispanic)"; "Yes, Mexican, Mexican-Amer., Chicano"; "Yes, Puerto Rican"' "Yes, Cuban"; and "Yes, other Spanish/Hispanic."

Coverage

H1
H3. Coverage. (H1. "Did you leave anyone out of Question 1 because you were not sure if the person should be listed-"/H3. "Is anyone visiting here who is not already listed?"): In 1970, these questions were numbered 10-12 and were included in the 100-percent population section. Question 9 in 1970 was an inquiry concerning whether the number of persons in the household exceeded eight on the short-form (or seven on the long-form) questionnaire; this question has been replaced by instructions on the questionnaire directing the respondent's action if the number of persons in the household exceeds seven.

100-percent Housing

H4. Number of living quarters at address. ("How many living quarters, occupied and vacant, are at this address?") No change from 1970.

H5. Access to Unit. ("Do you enter your living quarters-") No change from 1970; response categories specify types of access to the unit.

H6. Complete plumbing facilities. ("Do you have complete plumbing facilities in your living quarters, that is, hot and cold piped water, a flush toilet, and a bathtub or shower?"): Consolidates in the 1970 question on hot and cold piped water, flush toilet, and bathtub or shower into one question.

H7. Number of rooms. ("How many rooms do you have in your living quarters?"): No change from 1970.

H8. Tenure. (Are your living quarters-"): This question which differentiates units that are owned, rented or occupied without payment of cash rent has been separated from the single inquiry in 1970 concerning both tenure and condominium or cooperative status.

H9. Condominium Identification. ("Is this apartment (house) part of a condominium?"): Separated from the single inquiry in 1970 concerning both tenure and condominium or cooperative status. The part of the 1970 inquiry concerning cooperatives has been deleted from the 1980 questionnaire.

H10. Acreage, and presence of commercial establishment. (H10. "If this is a one-family house-"/ H10a. Is the house on a property of 10 or more acres?"/ Hb. "Is any part of the property used as a commercial establishment or medical office?"): The combined 1970 inquiry about acreage and commercial establishment has been divided into two "yes" or "no" parts. The inquiry about "one-family house" has been incorporated into the question wording itself. These provide a screener in the tabulation of value and rent.

H11. Value. ("If you live in a one-family house or a condominium unit which you own or are buying--What is the value of this property, that is, how much do you think this property (house and lot or condominium unit) would sell for if it were for sale?"): Revised from 1970 to explicitly include condominiums in 1980. Based on data from the Annual Housing Survey, the number of categories has been increased from 11 in 1970 to 24 for 1980, and the range of values now goes from "Less than $10,000" to $200,000 or more."

H12. Rent. ("If you pay rent for your living quarters--What is the monthly rent?"): Revised for 1980 to eliminate the write-in space for rent which was provided in 1970 in addition to specific response categories. Based on data from the Annual Housing Survey, the number of categories has been increased from 14 in 1970 to 24 for 1980, and the range of rent intervals now goes from "Less than $50" to "$500 or more."

C1, C2, C3, & D. Vacancy status. These items are filled only by census enumerators for vacant units. In addition to vacancy status and months vacant which appeared in 1970, the 1980 questionnaires will indicate whether a vacant unit is "boarded up."

APPENDIX C

Glossary of Geographic Terms

GLOSSARY OF GEOGRAPHIC TERMS

In this Glossary of Geographic Terms, the following acronyms and abbreviations are used:

BG	Block Group
BNA	Block Numbering Area
CCD	Census County Division
CDP	Census Designated Place
ED	Enumeration District
MMS	Metropolitan Map Series
SMSA	Standard Metropolitan Statistical Area
UA	Urbanized Area
VMS	Vicinity Map Series

American Indian Reservation. American Indian reservations are 274 areas set aside as reservations with established boundaries by treaty, statute, executive or court order. Federal and State reservations are located in 33 States. Trust lands outside the boundaries of reservations are not included. Reservations may cross State, county, CCD, or place boundaries.

American Indian reservations are identified by a three-digit code which is unique within the United States. Boundaries are shown on all detailed census maps.

American Indian Subreservation. A "district," "chapter," "segment," "area," or "community" defined within or associated with 21 of the American Indian reservations. In a few cases subreservations cross reservation boundaries or may be entirely outside reservations.

American Indian subreservations are identified by a three-digit code which is unique within the United States.

Block. Normally a well-defined rectangular piece of land, bounded by four streets. However, a block may also be irregular in shape or bounded by railroad tracks, streams or other features. Blocks, by definition, do not cross the boundaries of counties or census tracts. They may cross place boundaries. When blocks cross place boundaries, the blocks are split and statistical summaries are presented for the parts. In rural areas, blocks may include many square miles, depending on the frequency of roads and their intersection with rivers, mountain ridges or other physical features.

Census data will be tabulated by block in all urbanized areas (UAs) and, in many cases, somewhat beyond the final UA boundaries. The data will also be tabulated by block in incorporated places with 10,000 or more inhabitants outside UAs and in additional areas which contracted with the Census Bureau for the collection

of block statistics. Places outside of UAs are included in the block statistics program if they met the 10,000 population criterion in the 1970 census, official Bureau estimates through 1976, or a special census on or before December 31, 1977. Block coverage for qualifying places is within boundaries as of January 1, 1980.

A block is identified by a three-digit code which is unique within a census tract or, where tracts do not exist, block numbering area. Since separate summaries are provided for the parts of a block split by a place, tape users may need to specify the place code to retrieve data for a block. Blocks are defined on detailed census maps: Metropolitan Map Series, Vicinity Map Series, place maps, and county maps. The extent of block statistics coverage is reflected on maps by the presence or absence of the three-digit block number.

Block Group (BG). A combination of census blocks which is a subdivision of a census tract or block numbering area (BNA) and which is defined in all areas where block statistics are collected. (In areas where blocks are not identified, enumeration districts substitute for block groups as tabulation units.)

Block groups are defined within county and tract or block numbering area. They may be split by the boundaries of other higher level geographic entities recognized in the census, including places, census county divisions, congressional districts, and Indian reservations. When this occurs, statistical summaries (data records) are provided for each component or part.

Block groups are not outlined on census maps, but are defined as that set of blocks sharing the same first digit within a census tract or BNA. For example, Block Group "3" within a particular census tract would be defined as all blocks numbered between 301 and 399. In practice, the numbering would rarely go above 350 and would involve substantially fewer than 50 blocks, since gaps are occasionally left in the numbering, e.g., one block might be 312 and the next 316.

Block Numbering Area (BNA). Areas defined for the purpose of grouping and numbering blocks in blocked areas where tracts are not defined. BNAs do not cross county boundaries. They are identified by census tract-type numbers ranging from 9901.00 to 9989.99 which are unique within a county. While BNA numbers are similar to census tract numbers, BNAs are not census tracts.

Block numbering areas may be split for tabulation purposes by the boundaries of places and Census County Divisions (CCDs).

Census County Division (CCD). A statistical division of a county in California and 19 other states that is roughly comparable to a minor civil division used in other states. CCDs are established cooperatively by the Census Bureau and both state and local government authorities. CCDs are generally defined by boundaries

South, and West. Census regions have no relationship to the 10 Standard Federal Administrative Regions. Regions are identified by a one-digit code.

Standard Metropolitan Statistical Area (SMSA). A large population nucleus and nearby communities which have a high degree of economic and social integration with that nucleus. Each SMSA consists of one or more entire counties that meet specified standards pertaining to population, commuting ties, and metropolitan character. SMSAs are designated by the Office of Federal Statistical Policy and Standards of the Department of Commerce.

SMSAs to be observed in the 1980 Census are of two types: (1) those defined before January 1, 1980; and (2) those to be established in 1981 as a result of 1980 census population counts. In order for a new SMSA to be recognized following the 1980 Census, an area must have either:

1. A city with a population of at least 50,000 within its corporate limits, or

2. A Census Bureau defined urbanized area (which must have at least 50,000 population) and a total SMSA population of at least 100,000.

Each SMSA includes not only a city and its urbanized area, but also the remainder of the county or counties in which they are located and such additional outlying counties as meet specified criteria relating to metropolitan character and level of commuting of workers into the central city or counties. Specific criteria governing the definition of SMSAs recognized before 1980 are published in Standard Metropolitan Statistical Areas: 1975, issued by the Office of Federal Statistical Policy and Standards.

SMSAs are identified by a Federal Information Processing Standards (FIPS) four-digit numeric code, which follows the alphabetic sequence of the SMSA name. SMSAs are outlined on small scale maps in several 1980 report series. SMSA data appear in most 1980 census publications and summary tape files.

In 1982 or 1983, SMSA boundaries will be reevaluated using 1980 census data on commuting, population density, type of residence and population growth, according to new criteria spelled out in the Federal Register, January 3, 1980 (Vol. 45, No. 2, Pt. VI). At that time, new outlying counties may be added or existing ones dropped, some area titles may change, many new central cities will be designated, and some areas may be consolidated. Further, the term "standard metropolitan statistical area" will be shortened to "metropolitan statistical area" (MSA). These changes will not affect publication of 1980 census data for SMSAs.

State. The major political unit of the United States. The District of Columbia is treated as a State-equivalent in all 1980 census data series.

States are identified by a two-digit Federal Information Processing Standards (FIPS) code which follows the alphabetic sequence of state names, and by a two-digit census geographic state code, the first digit of which identifies the census division of which the state is a part. The Federal Information Processing Standards (FIPS) State code is used for sequencing in most reports and in tape files which present data for all states.

Tract. A small statistical subdivision of a county. Tracts have generally stable boundaries and are designed to be relatively homogeneous areas with respect to population characteristics, economic status, and living conditions. The typical tract contains between 2,500 and 8,000 residents. All SMSAs recognized before the 1980 census are completely tracted. In addition, census tracts have been established in counties outside those SMSAs (although some of these areas are likely to become SMSAs as a result of the census).

Tract boundaries are established cooperatively by local Census Statistical Areas Committees and the Census Bureau in accordance with guidelines that impose limitations on population size and specify the need for visible boundaries. Geographic shape and areal size of tracts are of relatively minor importance. Tract boundaries are established with the intention of being maintained over a long time so that statistical comparisons can be made from census to census. Census tracts observe county lines and are defined to cover all of the territory within each tracted county.

Census tracts are identified by a four-digit basic code and a two-digit suffix, e.g., 6059.02. Many census tracts do not have a suffix. In such cases, maps show just the four-digit code; tapes give the four-digit code followed by two blanks. Tract numbers are always unique within a county, and, except for New York, are also unique within an SMSA. All valid census tract numbers are in the range 0001 to 9899.99; a number between 9901.00 and 9989.99 denotes a block numbering area.

Census tract boundaries are shown on all detailed census maps. In addition, census tract outline maps are being created for each SMSA and each tracted county outside SMSAs. Tract outline maps show only those streets and physical features which serve as census tract boundaries. In addition, tract outline maps show the boundaries for places, CCDs and counties.

Urban and Rural Area (population). Urban and rural denote types of areas rather than specific areas outlined on maps. As defined by the Census Bureau, the urban population comprises all persons living:

1. in urbanized areas (defined below) and
2. in places of 2,500 or more inhabitants outside urbanized areas.

that seldom change and can be easily located, such as roads, rivers, power lines, etc.

Census county division boundaries are represented on all detailed census maps. CCDs, in alphabetic sequence, are assigned unique, incremental three-digit numeric codes within counties.

Congressional District. These 435 areas are defined for their respective states by State legislatures for the purpose of electing persons to the U.S. House of Representatives. Congressional districts observed for the 1980 Census are as designated for the 96th Congress.

Small scale maps of congressional districts appear in the Congressional District Data Book and the Congressional District Atlas. Congressional district boundaries are not shown on detailed 1980 map series.

County. The primary political and administrative divisions of states. County boundaries are shown on all census maps. A three-digit Federal Information Processing Standards (FIPS) county code identifies each county uniquely within a state. Counties are numbered in alphabetic sequence, with independent cities numbered separately at the end of the list.

Division, (Census Geographic). Census geographic divisions are nine groups of states which are subdivisions of the four census regions. Divisions are identified by a one-digit code which is also the first digit of the two-digit Census geographic code for each state in the division.

Enumeration District (ED). An area used in the 1980 Census for collection activities and as a tabulation area where block statistics are not prepared. Enumeration districts do not cross the boundaries of any other legal or statistical area, including CCDs, places, counties or congressional districts. Because of these constraints they vary widely in population size, although they do not generally exceed a population of 1,600 in areas where the census is taken by mail, or a population of 1,000 in areas where the census is taken by conventional enumerator canvassing. The population limits are designed so that an ED represents a reasonable workload for a single enumerator. In the areas without blocks, EDs are the smallest unit of census geography for which statistics are available.

Enumeration district boundaries are shown on MMS/VMS, place and county maps in areas where there are no block numbers. EDs are identified by a four-digit number which may be followed by a one-character alphabetic suffix. The suffix is used to identify subdivisions of EDs made during data collection activities where the original ED proved to be too populous for an efficient work unit, or to accommodate a revision to a place or other boundary made too late to be reflected on the maps. An ED number may also have a prefix indicating that the ED is of a special type (e.g.,

an Indian reservation), but the prefix is not necessary for identification of the ED. ED numbers do not repeat within a county.

Place. A concentration of population which may or may not have legally prescribed limits, powers, or functions. Most of the places identified in the 1980 Census are incorporated as cities, towns, villages, or boroughs. In addition, a number of census designated places (called "unincorporated places" in earlier censuses) are delineated for 1980 census tabulations.

Incorporated place. A political unit incorporated as a city, borough, village or town. Most incorporated places are subdivisions of the CCD in which they are located; for example, a village located within and legally part of a township. Some incorporated places cross CCD lines.

Census designated place (CDP). A densely settled population center without legally defined corporate limits or corporate powers or functions. Each has a definite residential nucleus with a dense, city-type street pattern, and ideally should have an overall population density of at least 1,000 persons per square mile. In addition, a CDP is a community that can be identified locally by place name. Boundaries of CDPs are drawn by the Census Bureau, in cooperation with state and local agencies, to include, insofar as possible, all the closely settled areas. In the 1980 Census, statistics are tabulated for each CDP with 5,000 inhabitants or more if located in an urbanized area with a central city of 50,000 or more and for each CDP of 1,000 or more if in an urbanized area with a central city of less than 50,000. Outside of urbanized areas, statistics are tabulated in 48 states for CDPs of 1,000 or more.

Incorporated place and CDP boundaries are shown on all detailed census maps. MMS/VMS maps show the boundaries of places in or near urbanized areas, and place maps are available for all places outside MMS/VMS coverage. In tracted areas, boundaries of places with 10,000 or more inhabitants are shown on tract outline maps, which are at a smaller scale than MMS/VMS maps. County subdivision maps, at still smaller scale, also show boundaries for places.

A four-digit numeric code is assigned by the Census Bureau to each place in alphabetic sequence within a state. Separate "place description" codes will also generally accompany place records. These codes indicate whether or not a place is incorporated, as well as represent certain other information about places.

Region, (Census). Census regions are large groups of states which are first-order subdivisions of the United States for census purposes. There are four regions--Northeast, North Central,

The rural population consists of everyone else. Therefore, a rural classification need not imply farm residence or a sparsely settled area, since a small city or town is rural as long as it is outside an urbanized area and has fewer than 2,500 inhabitants.

The terms urban and rural are independent of metropolitan and non-metropolitan designations: both urban and rural areas occur inside and outside SMSAs.

Urbanized Area (UA). A population concentration of at least 50,000 inhabitants, generally consisting of a central city and the surrounding, densely populated, contiguous territory (suburbs).

The urbanized area criteria define a boundary based primarily on a population density of at least 1,000 persons per square mile, but also include some less densely settled areas within corporate limits, and such areas as industrial parks and railroad yards, if they are adjacent to dense urban development. The density level of 1,000 persons per square mile corresponds approximately to the built-up area around a city. The "urban fringe" is that part of the urbanized area outside of a central city.

Typically, an entire urbanized area is included within an SMSA. The SMSA is usually much larger in terms of territory covered and includes territory where the population density is less than 1,000. Occasionally there is more than one UA within an SMSA. In some cases, a small part of a UA may extend beyond an SMSA boundary, and possibly, into an adjacent SMSA. A few 1980 UAs will be defined in areas which do not meet the 100,000 total population criterion for SMSA designation. UAs may cross state boundaries. In a few cases a UA may not include all of an "extended" central city which is determined to have a significant amount of rural territory.

UAs are identified by four-digit codes, which follow the alphabetic sequence of UA names. Their boundaries will be shown on final Metropolitan Map Series and Vicinity Map Series maps.

APPENDIX D

Tentative Publication and Computer Tape Program,
1980 Census of Population and Housing

1980 Census of Population and Housing

Revised February 1982

Tentative Publication and Computer Tape Program

The results of the 1980 census will be released as soon as they are tabulated and assembled. In this data dissemination program three major media will be utilized: printed reports, computer tapes, and microfiche.

The publications of the 1980 census are released under three subject titles, *1980 Census of Population and Housing*, *1980 Census of Population*, and *1980 Census of Housing*. The description of the publication program below is organized in sections, by census title, followed by the reports under each title. It should be noted that a number of the population census reports contain some housing data and a number of the housing census reports contain some population data.

Following the description of the publication program are sections on computer tapes, maps, and microfiche, and a section listing the subject items included in the 1980 census.

The data product descriptions include listings of geographic areas for which data are summarized in that product. Note that the term "place" refers to incorporated places and census designated (or unincorporated) places, as well as towns and townships in 11 States (the 6 New England States, the 3 mid-Atlantic States, Michigan, and Wisconsin).

Order forms for these materials are available in most cases, subject to availability of the data product, from Data User Services Division, Customer Services, Bureau of the Census, Washington, D.C. 20233; Census Bureau Regional Offices; U.S. Department of Commerce District Offices; and State Data Centers. Inquiries concerning any phase of the data dissemination program may be addressed to Data User Services Division, Customer Services, Bureau of the Census, Washington, D.C. 20233. After publication, census reports are on file in many libraries and are available for examination at any Department of Commerce District Office or Census Bureau Regional Office.

The Bureau is continually reviewing its 1980 census publication and computer tape program. Changes may occur to content, schedules, and media as described in this leaflet. When dates are not shown below, schedules are in review. Revisions showing more complete scheduling will be issued as necessary.

REPORTS

1980 Census of Population and Housing

Preliminary Reports

Series PHC80-P **Preliminary Population and Housing Unit Counts**

Issued: 10/80–2/81

These reports present preliminary population and housing unit counts as compiled in the census district offices. Counts are shown for the following areas or their equivalents: States, counties, county subdivisions, incorporated places, standard metropolitan statistical areas (SMSA's) as designated prior to the census, and congressional districts as delineated for the 96th Congress. There is one report for each State, the District of Columbia, Puerto Rico, Guam, Virgin Islands of the United States, and American Samoa, and a U.S. Summary report showing counts for the United States, regions, divisions, and States.

Advance Reports

Series PHC80-V **Final Population and Housing Unit Counts**

To be issued: 2/81– early 1982

These reports present provisional population counts classified by race and Spanish origin and also final housing unit counts prior to their publication in the final reports. These figures supersede the preliminary counts published in the PHC80-P series. Final counts are shown for the following areas or their equivalents: States, counties, county subdivisions, incorporated places, and congressional

districts as delineated for the 98th Congress. There is one report for each State, the District of Columbia, Puerto Rico, Guam, Virgin Islands of the United States, and American Samoa, and a U.S. Summary report showing counts for the United States, regions, divisions, States, and congressional districts.

Final Reports

Series PHC80-1 **BLOCK STATISTICS**

To be issued: early 1982–mid-1982

These reports present population and housing unit totals and statistics on selected characteristics which are based on complete-count data. Statistics are shown for individual blocks in urbanized areas, for selected blocks adjacent to urbanized areas, for blocks in places of 10,000 or more inhabitants, and for blocks in areas which contracted with the Census Bureau to provide block statistics. The set of reports consists of 375 sets of microfiche (no printed reports), and includes a report for each SMSA, showing blocked areas within the SMSA, and a report for each State and for Puerto Rico, showing blocked areas outside SMSA's, and a U.S. Summary which is an index to the set. In addition to microfiche, printed detailed maps showing the blocks covered by the particular report are available.

Series PHC80-2 **CENSUS TRACTS**

To be issued: late 1982–mid-1983

Statistics for most of the population and housing subjects included in the 1980 census are presented for census tracts in SMSA's and in other tracted areas. Some tables show complete-count data and others, sample-estimate data. Most statistics are presented by race and Spanish origin for areas with at least a specified number of persons in the relevant population groups. There is one report for each SMSA, as well as one for most States and Puerto Rico covering the tracted areas outside SMSA's (designated selected areas).

Copies of tables containing complete-count data may be purchased at the cost of reproduction as each set of tables is completed. Completion dates range from early 1982 through mid-1982.

Series PHC80-3 **SUMMARY CHARACTERISTICS FOR GOVERNMENTAL UNITS AND STANDARD METROPOLITAN STATISTICAL AREAS**

To be issued: Spring 1982–Fall 1982

Statistics are presented on total population and on complete-count and sample population characteristics such as age, race, education, disability, ability to speak English, labor force, and income, and on total housing units and housing characteristics such as value, age of structure, and rent. These are shown for the following areas or their equivalents: States, SMSA's, counties, county subdivisions (those which are functioning general-purpose local governments), and incorporated places. There is one report for each State, the District of Columbia, and Puerto Rico. This series does not include a U.S. Summary.

Copies of tables containing complete-count data may be purchased at the cost of reproduction as each set of tables is completed. Completion dates range from September 1981 through early 1982.

Series PHC80-4 **CONGRESSIONAL DISTRICTS OF THE 98th CONGRESS**

To be issued: Spring 1982–late 1982

This report presents complete-count and sample data for congressional districts of the 98th Congress. The report reflects redistricting now underway in anticipation of the 1982 elections and the special needs of the congressional audience. One report will be issued for each of the 50 States and the District of Columbia.

Copies of tables containing complete-count data may be purchased at the cost of reproduction as each set of tables is completed. Completion dates range from early 1982 through mid-1982.

Series PHC80-SI-1 **PROVISIONAL ESTIMATES OF SOCIAL, ECONOMIC, AND HOUSING CHARACTERISTICS**

To be issued: early 1982

This report presents provisional estimates based on sample data collected in the 1980 census. Data on social, economic, and housing characteristics are shown for the United States as a whole, each State, the District of Columbia, and SMSA's of 1,000,000 or more inhabitants. These data are based on a special subsample of the full census sample. The sample, which represents about 1.8 percent of the total population, was developed to provide users with early data on characteristics of the population and housing units.

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1980 Census of Population

Final Reports

Volume 1.

CHARACTERISTICS OF THE POPULATION

This volume presents final population counts and statistics on population characteristics. It consists of reports for the following 57 areas: the United States, each of the 50 States, the District of Columbia, Puerto Rico, and the outlying areas of Guam, Virgin Islands of the United States, American Samoa, and the Trust Territory of the Pacific Islands. The volume consists of four chapters for each area, chapters A, B, C, and D. Chapters A and B present data collected on a complete count basis, and chapters C and D present estimates based on sample information, except for outlying areas where all data are collected on a complete-count basis. In the complete-count data presented there are some differences from the counts presented earlier in the PHC80-V reports because corrections were made for errors found after the PHC80-V reports were issued. Chapters B, C, and D present most statistics by race and Spanish origin for areas with at least a specified number of the relevant population groups.

The U.S. Summary reports present statistics for the United States, regions, divisions, States, and selected areas below the State level. The State or equivalent area reports (which include the District of Columbia, Puerto Rico, and outlying areas) present statistics for the State or equivalent area and its subdivisions.

Statistics for each of the 57 areas are issued in separate paperbound editions of chapters A, B, and C. Chapter D is to be issued on microfiche only.

Series PC80-1-A Chapter A

NUMBER OF INHABITANTS

To be issued: 10/81—early 1982

Final population counts are shown for the following areas or their equivalents: States, counties, county subdivisions, incorporated places and census designated places (and towns and townships in selected States), standard consolidated statistical areas (SCSA's), SMSA's, and urbanized areas. Selected tables contain population counts by urban and rural residence. Many tables contain historical statistics from previous censuses.

Series PC80-1-B Chapter B

GENERAL POPULATION CHARACTERISTICS

To be issued: early 1982—mid-1982

Statistics on household relationship, age, race, Spanish origin, sex, and marital status are shown for the following areas or their equivalents: States, counties (by rural residence), county subdivisions, places (and towns and townships in selected States) of 1,000 or more inhabitants, SCSA's, SMSA's, urbanized areas, American Indian reservations, and Alaska Native villages.

Series PC80-1-C Chapter C

GENERAL SOCIAL AND ECONOMIC CHARACTERISTICS

To be issued: Fall 1982—early 1983

Data for subjects shown in the PC80-1-B reports are presented in more detail in PC80-1-C. Also shown are statistics on nativity, State or country of birth, citizenship and year of immigration for the foreign-born population, language spoken at home and ability to speak English, ancestry, fertility, family composition, type of group quarters, marital history, residence in 1975, journey to work, school enrollment, years of school completed, disability, veteran status, labor-force status, occupation, industry, class of worker, labor-force status in 1979, income in 1979, and poverty status in 1979. Each subject is shown for some or all of the following areas or their equivalents: States, counties (by rural and rural-farm residence), places (and towns and townships in selected States) of 2,500 or more inhabitants, SCSA's, SMSA's, urbanized areas, American Indian reservations, and Alaska Native villages.

Series PC80-1-D Chapter D

DETAILED POPULATION CHARACTERISTICS

To be issued: mid to late 1983

Statistics on population characteristics are presented in considerable detail and cross-classified by age, race, Spanish origin, and other characteristics. Each subject is shown for the State or equivalent area, and some subjects are also shown for rural residence at the State level. Most subjects are shown for SMSA's of 250,000 or more inhabitants, and a few are shown for central cities of these SMSA's.

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Series PC80-2 Volume 2.

SUBJECT REPORTS

To be issued: beginning 1983

Each of the reports in this volume focuses on a particular subject. Cross-tabulations of population characteristics are shown on a national, regional, and divisional level. A few reports show statistics for States, large cities, SMSA's, American Indian reservations, or Alaska Native villages. Separate reports are tentatively planned on any or all of the following characteristics: racial and ethnic groups, type of residence, fertility, families, marital status, migration, education, employment, occupation, industry, journey to work, income, poverty status, and other subjects.

Note that the preparation of subject reports is dependent upon availability of funding in 1983.

Series PC80-S1 **SUPPLEMENTARY REPORTS**

These reports present special compilations of 1980 census statistics dealing with specific population subjects. The reports tentatively include the following:

To be issued:

5/81	1. PC80-S1-1	Age, Sex, Race, and Spanish Origin of the Population by Regions, Divisions, and States: 1980
5/81	2. PC80-S1-2	Population and Households by States and Counties: 1980
7/81	3. PC80-S1-3	Race of the Population by States: 1980
9/81	4. PC80-S1-4	Population and Households for Census Designated Places: 1980
10/81	5. PC80-S1-5	Standard Metropolitan Statistical Areas and Standard Consolidated Statistical Areas: 1980
	6. Unassigned	Nonpermanent Residents by State and County: 1980
	7. Unassigned	Population and Housing Unit Counts for Identified American Indian Areas and Alaska Native Villages: 1980
	8. Unassigned	Persons of Spanish Origin by State: 1980

1980 Census of Housing

Final Reports

Volume 1.

CHARACTERISTICS OF HOUSING UNITS

This volume presents final housing unit counts and statistics on housing characteristics. It consists of reports for the following 57 areas: the United States, each of the 50 States, the District of Columbia, Puerto Rico, and the outlying areas of Guam, Virgin Islands of the United States, American Samoa, and the Trust Territory of the Pacific Islands. The volume consists of two chapters for each area, chapters A and B. Chapter A presents data collected on a complete-count basis. Chapter B presents estimates based on sample information, except for outlying areas where all data are collected on a complete-count basis. Both chapters present most statistics by race and Spanish origin for areas with at least a specified number of the relevant population groups.

The U.S. Summary report presents statistics for the United States, regions, divisions, States, and selected areas below the State level. The State or equivalent area reports (which include the District of Columbia, Puerto Rico, and outlying areas) present statistics for the State or equivalent area and its subdivisions.

Statistics for each of the 57 areas are issued in separate paperbound editions of chapters A and B.

Series HC80-1-A Chapter A

GENERAL HOUSING CHARACTERISTICS

To be issued: early 1982–mid-1982

Statistics on units at address, tenure, condominium status, number of rooms, persons per room, plumbing facilities, value, contract rent, and vacancy status are shown for some or all of the following areas or their equivalents: States, counties, county subdivisions, places (and towns and townships in selected States) of 1,000 or more inhabitants, SCSA's, SMSA's, urbanized areas, American Indian reservations, and Alaska Native villages. Selected tables contain housing characteristics for urban and rural areas.

Series HC80-1-B Chapter B

DETAILED HOUSING CHARACTERISTICS

To be issued: Fall 1982–early 1983

Some subjects included in the HC80-1-A reports are also covered in this report. Additional subjects covered include units in structure, year moved into unit, year structure built, heating equipment, fuels, air conditioning, water and sewage, gross rent, and selected monthly ownership costs. The statistics are shown for some or all of the following areas or their equivalents: States, counties, places (and towns and townships in selected States) of 2,500 or more inhabitants, SCSA's, SMSA's, urbanized areas, American Indian reservations, and Alaska Native villages. Selected tables show housing characteristics for rural-farm and rural-nonfarm residence at the State and county level.

Series HC80-2 Volume 2.

METROPOLITAN HOUSING CHARACTERISTICS

To be issued: mid to late 1983

This volume presents statistics on microfiche (tentatively, no printed reports planned) for most of the 1980 housing census subjects in considerable detail and cross-classification. Most statistics are presented by race and Spanish origin for areas with at least a specified number of the relevant population groups. Data are shown for States or equivalent areas, SMSA's and their central cities, and other cities of 50,000 or more inhabitants. There is one report for each SMSA, and one report for each State, the District of Columbia, and Puerto Rico. The set includes a U.S. Summary report showing these statistics for the United States and regions.

Series HC80-3 Volume 3.

SUBJECT REPORTS

To be issued: beginning 1983

Each of the reports in this volume focuses on a particular subject. Detailed sample estimates and cross-tabulations of housing characteristics are provided on a national, regional, and divisional level. Separate reports are tentatively planned on housing of the elderly, mobile homes, and American Indian households.

Note that the preparation of subject reports is dependent upon availability of funding in 1983.

Series HC80-4 Volume 4.

COMPONENTS OF INVENTORY CHANGE

To be issued: late 1982

This volume consists of two reports presenting statistics on the 1980 characteristics of housing units which existed in 1973, as well as on newly constructed units, conversions, mergers, demolitions, and other additions and losses to the housing inventory between 1973 and 1980. These reports present data derived from a sample survey conducted in the fall of 1980. Data are presented for the United States and regions. Some data are presented by inside and outside SMSA's and central cities.

HC80-5 Volume 5.

RESIDENTIAL FINANCE

To be issued: mid 1983

This volume consists of one report presenting statistics on the financing of nonfarm homeowner, rental and vacant properties, including characteristics of the mortgage, property, and owner. The statistics are based on a sample survey conducted in the spring of 1981. Data are presented for the United States and regions. Some data are presented by inside and outside SMSA's and central cities.

HC80-SI-1 **SUPPLEMENTARY REPORT—Selected Housing Characteristics by States and Counties: 1980**

Issued: 10/81

This report presents statistics from the 1980 Census of Housing on general characteristics of housing units for the 50 States and the District of Columbia, counties, and independent cities.

1980 Census of Population and Housing

Evaluation and Reference Reports

Series PHC80-E **EVALUATION AND RESEARCH REPORTS**

These reports present the results of the extensive evaluation program conducted as an integral part of the 1980 census. This program relates to such matters as completeness of enumeration and quality of the data on characteristics.

Series PHC80-R **REFERENCE REPORTS**

These reports present information on the various administrative and methodological aspects of the 1980 census. The series includes:

PHC80-R1 Users' Guide.

To be issued: beginning early 1982

This report covers subject content, procedures, geography, statistical products, limitations of the data, sources of user assistance, notes on data use, a glossary of terms, and guides for locating data in reports and tape files. The guide is issued in loose-leaf form and sold in parts (R1-A, -B, etc.) as they are prepared.

PHC80-R2 History.

To be issued: 1984

This report describes in detail all phases of the 1980 census, from the earliest planning, and through all stages, to the dissemination of data and evaluation of results. It contains detailed discussions of 1980 census questions and their use in previous decennial censuses.

PHC80-R3 **Alphabetical Index of Industries and Occupations.**

To be issued: beginning in 1980 with updates through 1983

This report was developed primarily for use in classifying responses to certain census questions relating to an employer's kind of business and an employee's kind of work. The index lists approximately 20,000 industry and 29,000 occupation titles in alphabetical order.

PHC80-R4 **Classified Index of Industries and Occupations.**

To be issued: beginning in 1980 with updates through 1983

This report defines the industrial and occupational classifications adopted for the 1980 Census of Population. It presents the individual titles that constitute each of the 231 industry and 503 occupation categories in the classification systems. The individual titles are the same as those shown in the Alphabetical Index. The 1980 occupation classification reflects the new U.S. Standard Occupational Classification (SOC). As in the past, the 1980 industry classification also reflects the Standard Industrial Classification (SIC).

PHC80-R5 **Geographic Identification Code Scheme.**

To be issued: Spring 1982

This report identifies the names and related geographic codes for each State, county, minor civil division, place, region, division, SCSA, SMSA, American Indian reservation, and Alaska Native village for which the Census Bureau tabulated data from the 1980 census.

COMPUTER TAPES

Summary Tape Files—General

In addition to the printed and microfiche reports, results of the 1980 census also are provided on computer tape for the United States and Puerto Rico in the form of summary tape files (STF's). These data products have been designed to provide statistics with greater subject and geographic detail than is feasible or desirable to provide in printed and microfiche reports. The STF data are made available, subject to suppression of certain detail where necessary to protect confidentiality, at nominal cost.

There are five STF's, and the amount of geographic and subject detail presented varies. STF's 1 and 2 contain complete-count data, and STF's 3, 4, and 5 contain sample-estimate data. Note that the term "cells" used below refers to the number of subject statistics provided for each geographic area, and the number of cells is indicative of the complexity of the subject content of the file.

Additionally, each of the STF's consists of a set of tapes with geographic coverage varying by file within the set. These are issued a State at a time, followed by the national level tapes. More complete descriptions of the STF's than given in the summaries below can be found in the technical documentation for the specific file, and in the *1980 Census of Population and Housing Users' Guide*.

Summary Tape Files

STF 1
To be available: 9/81—early 1982

This file provides 321 cells of complete-count population and housing data. Data are summarized for the United States, regions, divisions, States, SCSA's, SMSA's, urbanized areas, congressional districts, counties, county subdivisions, places, census tracts, enumeration districts in unblocked areas, and blocks and block groups in blocked areas. This file set includes data shown in the PHC80-1, PHC80-3, and PC80-1-A reports.

STF 2
To be available: early 1982—mid-1982

This file contains 2,292 cells of detailed complete-count population and housing data, of which 982 are repeated for race and/or Spanish origin groups present in the tabulation area. Data are summarized for the United States, regions, divisions, States, SCSA's, urbanized areas, counties, county subdivisions, places of 1,000 or more inhabitants, census tracts, American Indian reservations, and Alaska Native villages. This file set includes data shown in the PHC80-2, PC80-1-B, and HC80-1-A reports.

STF 3
To be available: Spring 1982—Fall 1982

This file contains 1,128 cells of population and housing data estimated from the sample for the same area as in STF 1, excluding blocks. This file set includes data shown in the PHC80-3 reports. In addition, the Census Bureau is exploring the possibility of producing STF 3 data for 5-digit ZIP Code areas on a cost-reimbursable, special-tabulation basis.

STF 4
To be available: mid-1982—late 1982

This file is the geographic counterpart of STF 2, but the number of cells of data is approximately three times greater. STF 4 provides detailed population and housing data estimated from the sample, some of which are repeated for race, Spanish origin, and ancestry groups. Data are summarized for areas similar to those shown for STF 2, except that data for places are limited to those with 2,500 or more inhabitants. This file set includes data shown in the PHC80-2, PC80-1-C, and HC80-1-B reports.

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STF 5
To be available: mid to late 1983

This file contains over 100,000 cells of population and housing data estimated from the sample and provides highly detailed tabulations and cross-classifications for States, SMSA's, and counties and cities of 50,000 or more inhabitants. Most subjects are classified by race and Spanish origin. This file set includes data shown in the PC80-1-D and HC80-2 reports.

Other Computer Tape Files

P.L. 94-171 Population Counts Issued: 2/81—3/81

In accordance with Public Law (P.L.) 94-171, the Census Bureau provided population tabulations to all States for legislative reapportionment/redistricting. The file was issued on a State-by-State basis. It contains the final population counts classified by race and Spanish origin. The data are tabulated for the following levels of geography as applicable: States, counties, county subdivisions, incorporated places, census tracts, block groups, and blocks or enumeration districts. For States participating in the voluntary program to define election precincts in conjunction with the Census Bureau, the data are also tabulated for election precincts.

Master Area Reference File (MARF)
To be available: 9/81—early 1982

This geographic reference file is an extract of STF 1 designed for those who require a master list of geographic codes and areas, along with basic census counts arranged hierarchically from the State down to the block group and enumeration district level and is issued on a State-by-State basis. The file contains records for States, counties, county subdivisions, places, census tracts, enumeration districts in unblocked areas, and block groups in blocked areas. Each record shows the total population by five race groups, population of Spanish origin, number of housing units, number of households, number of families, and a few other items.

Geographic Base File/ Dual Independent Map Encoding—GBF/DIME
Beginning in 1975 periodic updates

These files are computerized representations of the Metropolitan Map Series, including address ranges and ZIP Codes, which generally cover the urbanized portions of SMSA's. GBF/DIME files are used to assign census geographic codes to addresses (geocoding). The files are issued by SMSA.

Public-Use Microdata Samples
To be available: mid-1982—late 1982

Public-use microdata samples are computerized files containing most population and housing characteristics as shown on a sample of individual census records. These files contain no names or addresses, and geographic identification is sufficiently broad to protect confidentiality.

There are three mutually exclusive samples, the A sample including 5 percent, and the B and C samples each including 1 percent of all persons and housing units. States and most large SMSA's will be identifiable on one or more of the files. Microdata files allow the user to prepare customized tabulations.

Census/EEO Special File
To be available: Fall 1982—early 1983

In addition to the regular summary tape files, the Bureau plans to prepare a "Census/EEO Special File." This public-use computer file will provide sample census data with specified relevance to EEO and affirmative action uses. The file will contain two tabulations, one with detailed occupational data and the other with years of school completed by age. The data in both tabulations will be crossed by sex and Hispanic origin or race for non-Hispanics. These data will be provided for all counties, for all SMSA's, and for incorporated places with a population of 50,000 or more.

MAPS

Maps necessary to define areas are generally published as part of the corresponding reports. Detailed map packages showing the blocks in the *1980 Census of Population and Housing Block Statistics* reports (PHC80-1) must be purchased separately. Maps necessary to define enumeration districts are available on a cost-of-reproduction basis.

MICROFICHE

Some of the computer tape products are available on microfiche. Like the summary tape file sets, the STF microfiche are issued a State at a time, followed by the national-level microfiche. These include:

STF 1A Microfiche—Data from the STF 1 file set are presented in tabular form for STF 1A summarization levels (block data from STF 1B are not included).

P.L. 94-171 Counts Microfiche—Data from the P.L. 94-171 file are presented in a listing format on microfiche. The microfiche was issued on a State-by-State basis.

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APPENDIX E

Noncomparability of 1970 and 1980 Race/Ethnic Data

Population Research Unit
State Census Data Center

NONCOMPARABILITY OF 1970 AND 1980 RACE/ETHNIC DATA

Consistent with earlier practice, the 1980 census questionnaire distinguished between "race" and "ethnicity". Excepting the black category and that of the American Indian, "race" data from the Censuses of 1980 and 1970 are not comparable. Moreover, the principal Hispanic indicator was changed in concept and coverage. Spanish origin is an "ethnic" classification and persons of Spanish origin may be of any racial group.

The white population group received a more restrictive definition in 1980 in two respects, as indicated in (1) and (2) below. Changes impacting the "other" and "Asian" racial categories are also stated below.

(1) Persons electing "other" in the 1970 racial categories and characterizing themselves as members of one of the Spanish origin groupings were recoded "white". In 1980, when an estimated 40 percent of Hispanics nationally chose "other" as their racial category, they were left in "other".

(2) "Asian": Persons from India were defined as white in 1970 and as Asian in 1980.

(3) "Other": This grouping was augmented by the inclusion of the Hispanics who chose this category.

One of the most critical differences in reporting between 1970 and 1980 is the identification of the Hispanic population. In 1970 the principal indicator, based upon a 15 percent sample, was Spanish language. Persons of Spanish language were defined as those whose mother tongue was Spanish and, in addition, all those living in households where the head or the spouse of the head reported Spanish mother tongue. In California the additional criterion of Spanish surname was applied. The Spanish surname criterion was based upon a lengthy list of surnames used by persons of Spanish heritage but also by many not of Spanish background, for example, Portuguese or Italian. The joint use of the two criteria probably resulted in an overcount of those enumerated as Spanish. However, an acknowledged undercount of Hispanics did exist in the 1970 census. A five percent question on origin was similar to the 1980 question but the size of the sample makes a 10-year comparison of small areas questionable. Furthermore, the question design was changed adding an unknown bias. According to the Census of 1970, within the limitations described, there were about 3.1 million persons of Spanish language/Spanish surnames and 2.7 million persons of Spanish origin or descent in California.

On an optimistic note, coverage has been improved for all groups in 1980, and the Hispanic definition is one which is more readily compared with definitions used in administrative records in the calculation of rates. More detailed race and ethnic categories will be available later this year.

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